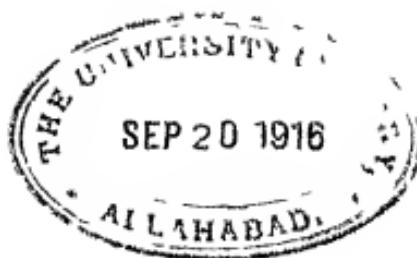




NOTES ON THE VALUATION OF  
REAL PROPERTY

CATALOGUED

3627



CROSBY LOCKWOOD & SON'S  
INDISPENSABLE BOOKS  
FOR VALUERS

**THE VALUATION OF REAL PROPERTY**

By CHARLES A. WILSON 15/- Third Edition  
Revised and Enlarged [Just Published]

**INWOOD'S TABLES FOR THE PUR-  
CHASING OF ESTATES** Thirteenth Edition

By WILLIAM SCHOOLING [Just Published]

**VALUATION OF MINERAL PROPERTY**

By T. A. O'DONAHUE

**TABULAR AIDS TO VALUATION** By

G. T. McCAW and F. O. LYONS

**THE AGRICULTURAL VALUER'S  
ASSISTANT** By TOM BRIGHT Fifth Edition

SEE FULL ADVERTISEMENTS AT THE END OF THIS BOOK

# NOTES ON THE VALUATION OF REAL PROPERTY

CONTAINING EXAMPLES OF  
VALUATIONS OF FREEHOLD AND  
LEASEHOLD PROPERTIES

BY  
H G LAMPUTT

ASSOCIATE OF THE AUCTIONEERS AND VALUERS INSTITUTE  
LAWED SURVOR IN PRACTICE IN IMMEDIATE  
EXAMINATION

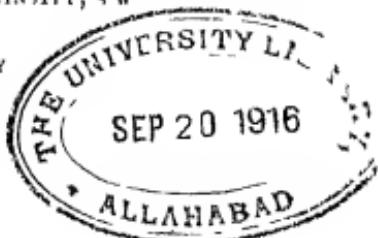


LONDON  
CROSBY LOCKWOOD AND SON  
7, STATIONERS' HALL COURT, FUDGATE HILL, E.C.  
AND 5, BROADWAY, WESTMINSTER, S.W.

1914

*all rights reserved*

*CATALOGUED.*



PRINTED BY  
WILLIAM CLOWES AND SONS LTD  
LONDON AND BRIGHTON

## PREFACE

THIS little book has been prepared for students who intend taking the Intermediate Examinations held by the Auctioneers' and Surveyors' Institutions, and contains a general knowledge of the principles and practice of the Valuation of Real Property as required in these examinations

H. G. L.

LONDON  
*February, 1911*



## CONTENTS

### CHAPTER I

#### PRINCIPLES OF VALUATION

	PAGE
<i>Capital Value</i> —How arrived at	1
<i>Years' Purchase</i> —Rate per cent	1, 2
<i>Freehold Properties</i> —Rate per cent in Freehold Properties, Agricultural Land, Accommodation Land, Building Land, Ground Rents Examples of Valuation of the foregoing pro- perties	3-10

### CHAPTER II

#### VALUATION OF FREEHOLD HOUSE PROPERTIES

<i>Business Premises</i> —Shops, Warehouses and Factories, and Offices	6, 7
<i>Residential Premises</i> —Large Houses, Middle class Houses, Small Houses, Cottages and Flats	8-10
<i>Summary of Years' Purchase</i> usually given for the various kinds of property	10

### CHAPTER III

#### LEASEHOLD PROPERTIES

<i>Creation of Leasehold Interests</i> — <i>Sinking Fund</i> —Example of, with explanation	11-13
<i>Years' Purchase</i> for Leasehold Properties with summary of the Years' Purchase usually given for leasehold interests in the various kinds of property Examples	13-14
<i>Leasehold Ground Rent</i> , with example	13, 14
<i>Surveyor's Report</i>	15

## CHAPTER IV

### Premiums

Premiums—Explanation of method of converting Premiums to Annual Amounts and vice versa with examples 16, 17

CHAPTER V

## Ревюльюнъ

<i>Reversions</i> —Explanation of Examples of Valuation of Free hold and Leasehold Reversions	18-20
<i>Valuation for Renewal of Lease</i> —Example	20, 21

CHAPTER VI

## Outlook

<i>Principal Deductions, with Remarks</i> —Title Land Tax Reports	
Management Local Rates Ground Rent etc. Method of ascertaining nett Annual Income from Rack Rents	22 23
<i>Examples</i> —Valuation of Agricultural Land Accommodation Land and Building Land	24, 25
<i>House Property</i> —(a) <i>Business Premises</i> —Valuation of Examples Shops, Warehouses and Factories, and Offices	26, 27
(b) <i>Residential Premises</i> —Valuation of Examples Large Houses Middle class Houses Small Houses, Cottages and Flats	27-28
<i>Reversionary Interests</i> —Valuation of Illustrating the calculation of the nett Annual Income from Rack Rent—	
(a) <i>Business Premises</i> —Examples Shops, Warehouses and Factories, and Offices	29-31
(b) <i>Residential Premises</i> —Examples Large Houses Middle class Houses, Small Houses Cottages and Flats	31-32
<i>Inhabited House Duty</i> —Table containing properties on which this duty is imposed and the various rates at which it is levied	33

## CHAPTER VII

VALUATIONS OF BUSINESSES

*Methods adopted for the Measurement of Buildings*—Cubing  
taking quantities off a plan, and calculating floor area  
*Cubing*—Procedure adopted Summary of prices applicable per  
cubic foot to various kinds of buildings

## CONTENTS

ix

## CHAPTER VIII

## VALUATION OF LIFE INTERESTS

<i>Mortality Tables</i> —Principle Tables enumerated	36
<i>Northampton Table</i> —Table generally used for Valuation of Life Interests	36
<i>Valuation of Life Interests</i> —Examples Single Life Joint Lives, The Longer of Two Lives The Longest of Three Lives	36-38

---

APPENDIX I—Valuation for Enfranchisement of Copyholds Example	39, 40
APPENDIX II—Valuation for Mortgage Example	41
APPENDIX III—Valuation for Compensation Example	42-43
APPENDIX IV—Terms and Definitions	44-45
INDEX	47



# NOTES ON THE VALUATION OF REAL PROPERTY

---

## CHAPTER I

### PRINCIPLES OF VALUATION

FROM a valuation point of view, there are two classes of people in the world viz —

(1) People who have money which they are willing to place at the disposal of others for a consideration

(2) People who are willing to pay some sum periodically for the use of money of others

*Capital* — The sum of money which the first-named class is willing to place at the disposal of others is called Capital

*Interest* — The amount which the second-named class is willing to pay to the first named class for the use of their money is called Interest

*Years' Purchase* — The value of a property is based on the nett income receivable. The capital value is then calculated by multiplying the nett annual income by a certain number, termed the Years' Purchase.

*Rate per Cent* — The rate per cent at which interest should be allowed must be determined by the valuer. The following

rule should be noted as regards the determination of the years' purchase for a freehold property when the rate per cent which the property should yield is arrived at —

$$\text{Years' Purchase equals } \frac{100}{\text{Rate per cent}}$$

#### EXAMPLES

Years' Purchase at 4 per cent equals  $\frac{100}{4}$  equals 25 Y P

“ “ , 5 per cent “  $\frac{100}{5}$  , 20 Y P

“ “ , 8 per cent “  $\frac{100}{8}$  , 12 5 Y P

### Valuation of Freehold Properties

*Freehold Property* —Property held finally

As distinguished from a lessee, a freeholder has no liability to pay rents, observe covenants, etc. For valuation purposes, Freehold Property may be studied under the following divisions —

- (a) Agricultural land
- (b) Accommodation land
- (c) Building land
- (d) Ground rents
- (e) House property

(a) *Agricultural Land* —The value of agricultural land depends upon its situation, fertility, etc. For purposes of investment, agricultural land is now worth about 25 years' purchase of the nett annual income, that is, the purchaser would receive 4 per cent per annum interest on the capital invested.

EXAMPLE —Calculate the value of a farm comprising 200 acres let at a rent of £2 per acre per annum nett

ANSWER —Nett Annual Income	£400
Y P Agricultural Land at 4 per cent	25
Value	£10,000

(b) *Accommodation Land*—Land which, owing to its situation, is utilized for some special purpose, such as market gardens, purposes of recreation etc. This class of property may be valued at 25 years' purchase of the nett annual income receivable.

EXAMPLE.—Value a field of 3 acres let to a market gardener and producing £12 per annum nett.

ANSWER.—Nett Annual Income £12

Y P Accommodation Land at 4 per cent	25
Value	£300

(c) *Building Land*—Land which is suitable for building purposes will command a higher rent than if it was only suitable for accommodation purposes or purposes of agriculture. The rental value of building land is called the Ground Rent. A ground rent is said to be secured when the land has been let and buildings erected thereon, and an unsecured ground rent until the land is let and developed. For purposes of investment land should be bought at 20 years' purchase of the unsecured ground rents. In valuing building land, proceed as follows—

- (1) Ascertain the capital value of the ground rents.
- (2) Deduct the following items from the capital value of the ground rents—

- (a) Cost of making roads, sewers, etc.
- (b) Law costs and surveyor's fees.
- (c) Generally the first year's ground rent.

EXAMPLE.—Calculate the value of an estate of 6 acres of land now ripe for building purposes. The ground rents obtainable for the plots (45 in number) will average £9 per plot. The cost of making a new road through the estate will be £750. Law costs and surveyor's fees will amount to £150.

ANSWER — Nett Annual Income	£40
Y P Unsecured ground rents at 5 per	*
cent	20
	—
	£8,100
<i>Deduct—</i>	
(a) Cost of making road	£750
(b) Law costs and surveyor's	
fees	£150
(c) One year's ground rent	£405
	—
	£1,305
Value of estate	£6,795

(d) *Ground Rents* — Ground rents paid when an estate has been developed are known as ' secured ground rents ' The value of a ground rent varies with the degree of security of the same The full annual value of the land and buildings is termed the rack rent Usually the ground rent should not exceed one fifth of the nett income receivable from the rack rent To calculate a fair ground rent payable, the following example will illustrate the procedure adopted —

EXAMPLE — A lessee proposes to erect a house which will let at £40 per annum on the freeholder's land It has been calculated that the lessee's annual outgoings would amount to £5 Ascertain a fair ground rent

ANSWER — Rack rent	£40 per ann
<i>Deduct—</i>	
Repairs, management, etc	£5
Nett Annual Income	£35

One fifth of this will be a good ground rent chargeable for the land, that is, £7 per annum Ground rents are purchased at about 20 to 25 years' purchase, varying according to the degree of security A ground rent is said to be three, four, or

five times secured when the nett income derived from the rack rent is three, four, or five times the amount of it. In the preceding example, the ground rent of £7 is five times secured. Ground rents secured three, four, or five times may be valued as follows —

(1) Ground rents secured 5 times at 25 years' purchase

(2) " " " 4 " 22 " "

(3) " " " 3 " 20 " "

The years' purchase adopted will, however, depend upon the particular class of property. No allowance is made for the value of the rack rent after the expiration of a lease unless the lease has less than 60 years to run.

EXAMPLE — A property situated in the West End produces a rack rent of £400 per annum. The land is let on lease, having a term of 70 years unexpired at a ground rent of £80 per annum. Value the freeholder's interest.

ANSWER —	Ground rent	£80 per ann
	Y P 5 times secured at 4 per	
	cent	25
	Value	£2,000

As the freeholder does not receive the rack rent until after the expiration of 70 years, no value is attached to same.

(e) *House Property* — See Chapter II

## CHAPTER II

### VALUATION OF FREEHOLD HOUSE PROPERTY

*Freehold House Property*—For purposes of investment freehold house property may be classified as follow—

(1) *Business Premises*—

- (a) Shops
- (b) Warehouses and factories
- (c) Offices

(2) *Residential Premises*—

- (a) Large houses
- (b) Middle class houses
- (c) Small houses
- (d) Cottages
- (e) Flats

#### Business Premises

(a) *Shops*—Generally afford a good investment. For purposes of investment generally bought at 20 years' purchase.

EXAMPLE—Calculate the value of a freehold shop situated in the City, occupying an unique position. The site has an area of 4,000 superficial feet, and is worth a ground rent of 6d per foot superficial. The shop cost £12,000 to erect.

ANSWER—Nett Annual Income, that is, Secured

ground rent	£100
Y P Secured ground rent at 4 per cent	25
Value of land	£2,500
Add value of buildings	£12,000
Value	£14,500

(b) *Warehouses and Factories*—Not a good form of investment. For purposes of investment these are worth about 17 years' purchase.

EXAMPLE—A block of warehouses situated near docks are let to a company on a yearly tenancy at £250 per annum. The landlord pays the outgoings, which amount to £50 per annum. Value the warehouses.

ANSWER—Gross Income per annum	£250
<i>Deduct—</i>	
Outgoings	£50
Nett Annual Income	£200
Y P =	17
Value	£3,400

(c) *Offices*—As a rule there is a keen competition to secure offices situated in a particular neighbourhood. The value of freehold offices is about 17 years' purchase.

EXAMPLE—A block of offices is let on a yearly tenancy. The gross income per annum equals £500. The landlord, however, pays the following outgoings—

(1) Lighting and cleaning	£25 per annum
(2) Porter's wages	£52 , , ,
(3) Lift-boy's wages	£26 , , ,

ANSWER—Gross Annual Income	£500
----------------------------	------

*Deduct—*

(1) Lighting and cleaning	£25
(2) Porter's wages	£52
(3) Lift—Boy's wages	£26
	— 103

Nett Annual Income	£397
--------------------	------

Y P = 17

Value	£6,749
	B

### Residential Premises

(a) *Large Houses*—Houses let at a rental exceeding £100 per annum in London and a correspondingly lower rental in the provinces are a very uncertain investment. Generally valued at 17 years' purchase.

EXAMPLE.—A house situated in the West End is let on an ordinary lease at £150 per annum. To put the property in a good condition it is necessary to expend £150 on redramming. What would you advise a client to give for the property?

ANSWER—Nett Annual Income	£150
Y P =	17
Value	£2,550
<i>Deduct—</i>	
Expenditure on redramming	£150
	—
	£2,400

Purchase money to advise client to invest, £2,400

(b) *Middle class Houses*—Houses let at rentals of £50 to £100 in London and a correspondingly lower rental in the provinces may be valued at 18 years' purchase.

EXAMPLE.—Ascertain the value of a suburban residence producing a nett income of £70 per annum.

ANSWER—Nett Annual Income	£70
Y P =	18
Value	£1,260

(c) *Small Houses*—Let at rentals from £30 to £50 per annum. For the purposes of investment this class of property is valued at 17 years' purchase.

EXAMPLE.—Four freehold villas let on three years' agreements producing a gross income of £160 per annum. The

landlord pays all outgoings, which amount to £20 per annum. What amount would you advise a client to give for purposes of investment?

ANSWER—Gross Income per annum	£160
<i>Deduct—</i>	
Outgoings vs paid by landlord	£20
Nett Income per annum	£140
Y P =	17
Value	£2,380

Sum to invest would be £2,380

(d) *Cottages*—Usually let on weekly tenancies. Weekly properties are at the present time a sound investment, providing they are situated in a good letting neighbourhood. This class of property is worth 14 years' purchase.

EXAMPLE—Value 3 cottages let at 10s per week each. The outgoings, paid by the landlord, amount to one-third of the gross rents.

ANSWER—Gross Annual Income	£78
<i>Deduct—</i>	
Outgoings paid by landlord	£26
Nett Annual Income	£52
Y P =	14
Value	£728

(e) *Flats*—Not a good class of property for investment. Usually obtain 14 years' purchase.

EXAMPLE—A block of 32 flats produces a gross income of £1,600 per annum, the landlord paying rates and other outgoings, which amount to 50 per cent of the gross income. Value

ANSWER — Gross Annual Income	£11,000
<i>Deduct —</i>	
Rates and outgoings at 50 per cent	£800
Net Annual Income	£800
Y P =	14
Value	£11,200

The table below contains a summary of the years' purchase that are given for the different kinds of properties —

Description of property	Years purchase for average cases	Y P for examination purposes
Agricultural land	20-25	
Accommodation land	20-25	
Building land	18-22	
Ground rents	24-26	
Shops	18-22	
Warehouses and factories	15-20	
Offices	15-20	
Large houses	16-20	
Middle class houses	17-20	
Small houses	14-14	
Weeley cottages	12-16	
Flats	12-16	

The number of years' purchase adopted in the preceding examples should be used for examination purposes.

## CHAPTER III

### LEASEHOLD PROPERTIES

A LEASEHOLD property is created when the freeholder grants the use of the freehold land, with any buildings, etc., which may be on it, to another person for either a definite period or an indefinite period, the lessee (the person to whom the use of the land is granted) paying a rent to the lessor (the person who grants the use of the land, that is, the freeholder) for the use of the property. A property leased for a term not exceeding three years is popularly said to be held under an agreement and not on lease. A leasehold property has no capital value unless the rent receivable by the lessee exceeds the rent payable to the lessor, that is, the ground rent. When a lessor lets building land on lease, the lessee develops the land and increases the nett annual income. The difference between the nett annual income receivable by the lessee and the ground rent payable to the lessor is the lessee's profit rent, and this has a considerable capital value varying with the unexpired term of the lease. The rules for valuing a leasehold property are as follows —

- (1) Calculate the lessee's profit rent
- (2) Determine the rate of interest to be received on the investment
- (3) Multiply the profit rent by the years' purchase

N.B.—It must be noted that when valuing a leasehold

property, the years' purchase cannot be arrived at as in the case of valuing a perpetual interest, owing to the years' purchase varying as does the unexpired term of the lease. For this purpose, valuation tables must be used.

*Sinking Fund*—It should be noted that when a leasehold property has been valued, the nett income receivable from the investment exceeds the bare interest. The sum in excess of the bare interest if invested annually at the same rate of interest as obtained on the investment, will secure the purchaser the return of his capital upon the expiration of the lease. This sum, when invested annually, is known as a Sinking Fund. The following illustration will make this point clear—

A suburban villa, producing a nett annual income of £40, is held on lease, having 21 years to run at a ground rent of £8 per annum. Proceeding, the valuation will be as follows—

Annual Income	£10
<i>Deduct</i> —	
Ground Rent	£8
Nett Annual Income	£32
Y P 21 years at 6 per cent, say	11 75
Value	£376

Calculate the difference between the annual interest receivable upon £376 at 6 per cent and the nett annual income of £32.

Annual Income	£32
Interest on £376 at 6 per cent	£22 56
	£9 44

The difference is £9 44, and this sum, if invested annually

at 1 per cent, will in 21 years amount to £376, which is the capital invested.

The sum to be invested annually at 6 per cent to secure the return of £1 on the expiration of the 21 years is £025005, therefore the sum to be invested annually to secure the return of £376 equals £025005  $\times$  £376, and thus equals £9 4. This differs from the interest on £376 by £04, but this is approximately accounted for by valuing the property at 11 75 years purchase instead of 11 764 years' purchase as per the valuation tables.

*Rates per cent for Leasehold Properties*—These properties should be purchased at rates per cent which are from 1 to 2 per cent higher than if they were freehold. The following table contains a summary of years' purchase usually given for the various leasehold properties—

Description of property	Number of years purchase	Y.P. for examination purposes
Leasehold ground rents	20-22	
Shops	16-20	
Warehouses and factories	14-16	
Offices	14-16	
Large houses	16	
Middle class houses	16	
Small houses	14-16	
Weekly cottages	12 5-14	
Blats	12 5-14	

*Leasehold Ground Rents*—The following years' purchase are adopted for valuing leasehold ground rents—

(1) Ground rents secured 5 times at 22 years' purchase

(2) " " " 4 " 20 " "

(3) " " " 3 " 18 " "

EXAMPLE—Calculate the value of a leasehold house, the nett annual income being £50. The lease has 21 years to run at a ground rent of £10 per annum.

ANSWER — Annual Income	£50
Deduct—	
Ground rent	£10
	—
Nett annual income	£40
Y P 21 years at 6 per cent, say	11 75
	—
Value	£470

EXAMPLE — Find the value of a leasehold house held for a term of 21 years at a ground rent of £3 per annum but sublet for the whole term—less one day—and producing a clear nett annual rent of £6. The full annual value of the property is now £30 per annum. Value sub lessee's interest

ANSWER — (1) *Lessee's Interest* — that is the leasehold ground rent

Improved ground rent	£6
Deduct—	
Freehold ground rent	£3
	—
	£3
Y P 21 years at 4 $\frac{1}{2}$ per cent, say	13 5
	—
Leasehold value	£40 10s

(2) *Sub lessee's Interest*

Nett rental value per annum	£30
Deduct—	
Rent paid to lessee	£6
	—
Nett Annual Income	£24
Y P 21 years at 6 per cent say	11 75
	—
Value of sub lessee's interest	£282

The following table will be found useful for young

surveyors to take with them when inspecting a property for purposes of valuation —

## SURVEYOR'S REPORT

- (1) Situation of the property
- (2) Description and number of rooms
- (3) Frontage and depth of land
- (4) Freehold or leasehold and number of years unexpired
- (5) Ground rent
- (6) Has the road been taken over by the Parish ?
- (7) Have the paving charges been paid ?
- (8) Rateable value Gross, £ Nett, £
- (9) By whom are rates and taxes payable ?
- (10) Rent and how payable
- (11) Condition of locality as to lettings
- (12) Estimated value



## CHAPTER IV

### PREMIUMS

*Premiums*—Frequently when a lessor lets property on lease he asks the lessee to pay him a stipulated amount upon the commencement of the lease and in consideration of the lessee so doing agrees to make a *pro rata* reduction per annum. This amount is known as a premium, and represents capitalized rent. It is frequently necessary, therefore, to convert premiums into annual amounts and *vice versa*. From the foregoing chapters, we learn that—

Capital Value equals Annual Value  $\times$  Years' Purchase

therefore Annual Value equals  $\frac{\text{Capital Value}}{\text{Years' Purchase}}$

**EXAMPLES**—A proposes to let to B a house on lease for 25 years at £250 per annum. A requires B to pay him, at commencement of tenancy, £500 premium. What rent should B pay?

**ANSWER**

Annual Value of premium equals  $\frac{\text{Capital Value}}{\text{Years' Purchase}}$

Therefore Y P equals  $\frac{\text{£500}}{25 \text{ years at } 6 \text{ per cent}}$

equals  $\frac{\text{£500}}{12.78 \text{ Y P}}$

equals, say £39

Therefore the annual value of premium of £500 for a term

of 25 years equals £39, and consequently B should pay a rent of £500 less the annual amount of the premium, viz £39, which equals £211 per annum. Rent payable equals £211 per annum.

EXAMPLE.—A landlord lets a house on lease for a term of 60 years, the nett annual value being £160. The lessee proposes to pay a premium and a rent of £120 per annum. What should the premium be?

ANSWER.—Annual Value	£160
<i>Deduct—</i>	
Proposed rent	£120
Reduction per annum	£40
Y P 60 years at 6 per cent, say	16 25
Amount of premium	£650

EXAMPLE.—At what annual nett outgoing is a man sitting who takes a house on lease for 21 years at a rent of £350 per annum? He paid a premium of £1,000 upon the commencement of the tenancy, and after the expiration of seven years expends a sum of £400 upon the buildings.

ANSWER.—(1) Rent reserved in lease	£350
(2) Annual value of premium	
equals	£1000
equals	Y P 21 years at 6 per cent
equals	$\frac{£1000}{11 \frac{7}{26}}$ equals, say
equals	£85
(3) Annual value of expenditure of £400 for 14 years	
equals	£400
equals	Y P 14 years at 6 per cent
equals	$\frac{£400}{9 \frac{29}{29}}$ equals, say
equals	£43
Rent paid per annum equals	£478

## CHAPTER V

### REVISIONS

*Revisions*—An estate in expectancy which will come into possession after the determination of an existing particular estate. To value revisionary interests proceed as follows—

- (1) Determine the years' purchase assuming that the income is to be immediately received
- (2) Calculate the years' purchase for the period during which the income will not be received
- (3) Deduct the years' purchase as calculated by Rule 2 from the years' purchase as calculated by Rule 1, and the remainder is the years' purchase required for the valuation of the revisionary interest

*EXAMPLE*—Value the following freehold ground rents—

- (a) £10 per annum secured upon two houses let and producing £36 per annum each nett, with revision after 30 years
- (b) £30 per annum secured upon four houses producing £160 per annum nett. The lease has 21 years to run
- (c) £50 per annum secured upon five shops producing nett rents of £500 per annum. The lease has 80 years to run

## ANSWER

(a) (1) Freehold ground rent	£10 per annum
Y P 30 years at 4 per cent, say	17 25
	<u>say £172</u>
(2) Reversion to nett income of £72 p a	
Y P equals Perpetuity de- ferred 30 years at 6 per cent	
(equals 16 50 - 13 75) equals 2 75	
	<u>—</u>
	£198
	<u>—</u>
(b) (1) Freehold ground rent	£30
Y P 21 years at 4 per cent, say	14
	<u>£420</u>
(2) Reversion to nett income of £160 p a	
Y P equals Perpetuity de- ferred 21 years at 6 per cent (equals 16 50 - 11 75)	
equals	4 75
	<u>—</u>
	£760
	<u>—</u>
(c) Freehold ground rent	£50 p a
Y P at 4 per cent	25
	<u>—</u>
	£1,250
Value of estate	<u>£2,800</u>

N B —No valuation for reversion to rack rent in case (c) is necessary, as the lease has an unexpired term exceeding 60 years

### Leasehold Reversions

EXAMPLE —Calculate the value of a leasehold house having an unexpired term of 90 years. The ground rent payable is £10 per annum. The lessee underleased the property for a term of 30 years, receiving £30 per annum. The nett annual value of the property is now £100

## ANSWER

(1) Improved ground rent	£30 per annu
<i>Deduct—</i>	
Freehold ground rent	£10
	—
	£20
Y P 30 years at 5 per cent, say	15 25
	—
(2) Reversion to per annum	£305
<i>Deduct—</i>	
Freehold ground rent	£10
	—
	£90
Y P 90 years at 6 per cent equals 16 50	
<i>Deduct—</i>	
Y P 30     ,,     6     ,     ,,     16 75	
	—
	16 75
	— say £245
Value	£550

## Renewal of Leases

EXAMPLE—A shop is let on lease to a tenant having 8 years' unexpired at a rent of £100 per annum. The rental value of the premises is now £160 per annum. The tenant wishes to surrender his present lease and take a new lease for 14 years. What rent should he pay?

ANSWER—Present rental value	£160 per annum
Rent reserved	£100
	—
	£60
Y P 14 years at 6 per cent equals	9 25
<i>Deduct—</i>	
Y P 8 years at 6 per cent equals	6 25
	—
	3
	—
	£180

Premium payable equals £180, therefore, to ascertain rent payable, find the annual value of the premium and add to rent reserved

$$\begin{aligned} \text{Annual value of premium equals } & \frac{\text{£180}}{\text{Y P 14 years at 6 per cent}} \\ & \text{equals } \frac{\text{£180}}{9 \frac{25}{25}} \\ & \text{equals, say £19,} \end{aligned}$$

and rent payable is £100 plus annual value of premium, i.e. £19, which is £119 per annum

## CHAPTER VI

### OUTGOINGS

**ANNUAL OUTGOINGS**—Before valuing a property it is necessary to ascertain the nett income receivable by the owner. The difference between the rent received by the owner and the nett income constitutes outgoings, i.e. sums which the landlord expends to keep his property in such a condition as to demand the rent. The following are the principal outgoings, with brief notes thereon—

(1) *Tithes*—Payments made to the Church. Originally in the form of a portion of the produce of the land, now money payments. May be redeemed at 25 years' purchase. Deduct from rack rent.

(2) *Land Tax*—A small tax levied on the annual value of land. May be redeemed at 30 years' purchase. This out-going should be deducted from the rack rent in ascertaining the nett income.

(3) *Landlords' Property Tax*—No deduction should be made for this outgoing in ascertaining the nett annual income.

(4) *Inhabited House Duty*—This must not be deducted unless paid by the landlord.

(5) *Local Rates*—Usually payable by the tenant. Must not be deducted unless paid by the landlord.

(6) *Repairs*—Usually done by landlord. A deduction varying from 5 to 15 per cent is made, but for average cases a deduction of 10 per cent would be sufficient.

(7) *Management, etc*—This is usually treated as a deduction. The charge varies from 5 to 10 per cent per annum on the gross rent.

(8) *Emptyies, etc*—A deduction is generally allowed on weekly properties. Usually from 5 to 10 per cent on gross rents.

(9) *Ground Rents*—When valuing a leasehold interest the ground rent should be deducted in ascertaining the nett annual income.

(10) *Rent Charges*—These should be deducted in ascertaining the nett annual income.

(11) *Undeveloped Land Duty*—A duty imposed by the Finance (1909-1910) Act, 1910. Levied at the rate of one halfpenny in the pound on the site value of undeveloped land. There are exemptions to this duty. Should be deducted where the amount is known. Usually disregarded as the amount is generally small. The following is a table of the approximate deductions to be made from the rack rent to ascertain the nett annual income. This table is given only as a guide.

Property	Tenancy	Outgoings to be deducted	Amount
Agricultural Land	Yearly	Land Tax, Tithe, Repairs and Insurance	Amount of Land Tax and Tithe paid 5 per cent for Repairs and Insurance
House Property	Lease	Nil	Nil
	3 years' agreement	Repairs, Insurance and Management	12 5 to 15 per cent
	Yearly	Repairs, Insurance and Management	15 to 20 per cent
	Monthly or Weekly	Rates, Taxes, Repairs, Insurance and Management	33 33 to 60 per cent

Valuation of Freehold and Leasehold Properties, illustrating the method of ascertaining the nett income from the rack rent.

(1) *Agricultural Land*—

EXAMPLE—What is the value of a farm of 190 acres let on a yearly tenancy at £140 per annum? The annual amount of Tithe payable is £5

ANSWER—Gross Annual Income	£140
<i>Deduct</i> —	
Tithe	£5
Repairs and Insurance at 5 per cent	£7
	—
Nett Annual Income	£128
Y P at 4 per cent	25
	—
Value	£3,200

(2) *Accommodation Land*—

EXAMPLE—A field of three acres containing a shed is let to a horse dealer at a rental of £10 on a yearly tenancy

ANSWER—Gross Annual Value	£10 0s
<i>Deduct</i> —	
Repairs at 5 per cent	10s
Nett Annual Income	£9 10s
Y P at 4 per cent	25
	—
Value	£237 10s

(3) *Building Land*—

EXAMPLE—Ascertain the value of a building estate on which ground rents of £2,600 per annum can be secured. The expenditure necessary for construction of roads and sewers will amount to £7,800. Land Tax payable equals £2 per annum. A portion of the estate will be developed in 2 years, but the whole income will not be receivable until a period of 10 years has elapsed

BUSINESS PREMISES 25

ANSWER—Nett Annual Income, <i>i.e.</i> unsecured ground rents	£2,600
Y P defered, say 6 years at 5 per cent (equals 20 — 5) equals	15
	<hr/>
	£39 000

*Deduct—*

Road construction and sewers	£7,800
Redemption of Land Tax equals	
£2 × 30 Y P	60
	<hr/>
	£7,860
	<hr/>
	£31,140

The above has been defered for a period of 6 years, as a portion of the income will be receivable in 2 years, and the whole income in 10 years

HOUSE PROPERTY

(a) *Business Premises (1) Shops*

EXAMPLE—Calculate the value of a leasehold shop. The property is let on full repairing lease at a rent of £200 per annum. The ground rent is £30 per annum and the lease has 76 years to run

ANSWER—Annual Income	£200
<i>Deduct—</i>	
Ground rent	£30
Nett Annual Income	£170
Y P 76 years at 6 per cent, <i>suv</i>	16 5
Value	£2,805

(2) *Warehouses and Factories*

EXAMPLE—Value the leaseholder's interest in a warehouse held for an unexpired term of 15 years at a ground rent of £100 per annum. The warehouse is let on an annual tenancy producing £650 per annum. The expenditure incurred by the leaseholder amounts to 20 per cent of the gross

income, in addition to which he spends £50 per annum on incidental expenses on the property

ANSWER — Gross Annual Income	£650
<i>Deduct—</i>	
Ground rent	£100
Repairs, Management, and Insurance at 20 per cent	£130
Incidental expenses	£50
	— £280
Nett Annual Income	£370
Y P 15 years at 6 per cent say	9 75
Value, say	£3,600

### (3) Offices

EXAMPLE — Determine the value of a leasehold block of offices. The offices are let on weekly tenancies and produce a gross annual income of £4 800. The landlord pays all rates, taxes, and outgoings, and does all the repairs. The landlord also employs a hall porter at a wage of £1 per week. The lease has an unexpired term of 70 years at a ground rent of £400 per annum

ANSWER — Gross Annual Income	£4,800
<i>Deduct—</i>	
(1) Ground rent	£400
(2) Rates, taxes, repairs, management, and Insurance at 40 per cent	£1,920
(3) Hall porter at £1 per week	52
	— £2,372
Nett Annual Income	£2,428
Y P 70 years at 6 per cent, say	16 5
Value, say	£40,000

## (b) Residential Premises (1) Large Houses

EXAMPLE — A house is let on repairing lease for 21 years at a rent of £120 per annum, in addition to which the lessor paid a premium of £250. Value the property

ANSWER — (1) Rent reserved in lease £120 per ann.

(2) Annual value of premium

equals  $\frac{\text{£250}}{\text{Y.P. 21 years at } 6\%}$

equals  $\frac{\text{£250}}{11.75}$  equals, say  $\frac{\text{£21}}{—}$

Nett Annual Income	£141
Y.P. =	17

Value	£2,397
-------	--------

## (2) Middle class Houses

EXAMPLE — A house is let on agreement for 3 years at £52 per annum, and is held for 99 years at a ground rent of £10 per annum. Value leasehold interest

ANSWER — Gross Annual Income £52

Deduct —

Ground rent £10

Repairs, management, and m

surance at  $12\frac{1}{2}$  per cent, say £6  
— £16

Nett Annual Income	£36
--------------------	-----

Y.P. 99 years at 6 per cent, say	16 5
----------------------------------	------

Value, say	£595
------------	------

## (3) Small Houses

EXAMPLE — Find the value of the leasehold interest of the following property. A house held for an unexpired term of 28 years at a ground rent of £6 per annum and let on an annual tenancy producing £35

ANSWER—Gross Annual Income	£35
<i>Deduct—</i>	
Ground rent	£6
Repairs, management, and Insurance at 20 per cent	£7
	— £13
Nett Annual Income	£22
Y P 28 years at 6 per cent, say	13 5
Value, say	£300

(4) *Cottages*

EXAMPLE—A row of ten cottages is to be sold by auction. Each cottage is let at a rent of 10s per week, the landlord paying all outgoings, including rates and taxes. The cottages are freehold. What should they realize?

ANSWER—Gross Annual Income	£260
<i>Deduct—</i>	
Rates, taxes, repairs, management and insurance at 40 per cent say	£104
Nett Annual Income	£156
Y P = 14	—
Value	£2,184

(5) *Flats*

EXAMPLE—A leasehold block of 32 flats produces a gross annual income of £1,600. The landlord pays rates and other outgoings. An additional expense is incurred by the landlord—the amount being £52 per annum for wages of a lift attendant. Value the flats, the unexpired term being 80 years at a ground rent of £500 per annum.

ANSWER — Gross Annual Income	£1,600
<i>Deduct —</i>	
Ground rent	£500
Rates, taxes, repairs, management, and insurance at 40 per cent	£640
Lift attendant's wages	£52
	— £1,192
Nett Annual Income	£408
Y P 80 years at 7 per cent, say	14.25
Value, say	£5,815

HOUSE PROPERTY — Valuation of reversionary interests illustrating the valuation when ascertaining the nett annual income from the rack rents

(a) *Business Premises (1) Shops*

EXAMPLE — What is the fee simple value of a shop let on lease having 31 years unexpired at a ground rent of £12 10s per annum, and with a rack rent of £75 per annum on a three years' agreement?

ANSWER — (1) Ground rent per annum £12 10s

Y P 31 years at 4 per cent, say	17.5
	— say £222

(2) Reversion to per annum £75

*Deduct —*

Repairs, management, and insurance at 12.5 per cent, say	£9
	—

Y P perpetuity deferred 31 years at 5 per cent (equals 20 - 15.5) equals	4.5
	—

Value, say	£520
------------	------



(2) *Warehouses and Factories*

EXAMPLE—A warehouse is let on lease having 21 years unexpired at a ground rent of £10 per annum, which on the expiration of the lease will let at £90 per annum on a yearly tenancy. It has been ascertained that the landlord's outgoings will amount to 20 per cent of the gross rent. Value the warehouse.

ANSWER—(1) Ground rent per annum	£10
Y P 21 years at 4 per cent, say	14
	—
(2) Revision to per annum	£90
<i>Deduct</i>	
Outgoings at 20 per cent	£18
	—
Nett annual income	£72
Y P perpetuity deferring 21 years at 6 per cent (equals 16.50 — 11.75) equals	£75
	— say £75
Value	£180

(3) *Offices*

EXAMPLE—A block of offices situated in the City is let on lease at a ground rent of £100 per annum, having an unexpired term of 40 years. On the expiration of the lease the offices should produce a gross income of £1,000 per annum on weekly tenancies. The outgoings payable by the landlord will be rates, taxes, repairs, management, insurance, etc. No other deductions will be necessary. Value the property.

ANSWER—(1) Ground rent per annum	£100
Y P 40 years at 1 per cent, say	19.75
	—
	£1,975

Brought forward	£1,975
(2) Reversion to gross annual income	
come	£1,000
<i>Deduct</i> —	
Rates, taxes, repairs, management, and insur- ance at 40 per cent	£400
Nett annual income	£600
Y P perpetuity deferred 40 years at 6 per cent (equal) 16 50 - 15 00) equals	1 5
	—
Value	£2,875

(b) *Residential Premises (1) Large Houses*

EXAMPLE—A town residence let on lease and having an unexpired term of 10 years at a ground rent of £30 per annum will, on the expiration of the lease, let at £300 per annum on a yearly tenancy. Value the freeholder's interest

ANSWER—(1) Ground rent	£30 per ann
Y P 10 years at 4 per cent, say	8
	—
	£240

(2) Reversion to gross annual income	£300
<i>Deduct</i> —	
Repairs, management, and insurance at 20 per cent	£60
Nett annual income	£240
Y P perpetuity deferred 10 years at 6 per cent (equals 16 50 - 7 25) equals	9 25
	—
Value	£2,220
	—
	£2,460

(2) *Middle class Houses*

EXAMPLE—A house is held on a lease having 30 years to run at a ground rent of £5 per annum, the annual value of the property is now £45 on a three years' agreement. What is the freehold value?

ANSWER—(1) Annual ground rent	£5
Y P 30 years at 4 per cent, say	17 25
	— say £86
(2) Reversion to per annum	£45
<i>Deduct—</i>	
Repairs, management and insurance at 12 5 per cent, say	£6
Nett annual income	£39
Y P perpetuity defied 30 years at 6 per cent (equals $16\frac{50}{60} - 13\frac{75}{60}$ ) equals	2 75
	— say £105
Value say	£190

(3) *Small Houses*

EXAMPLE—Ascertain the freehold value of a house held on lease, and having an unexpired term of 25 years at a ground rent of £3 per annum, the property now being let at £30 per annum on a yearly tenancy

ANSWER—(1) Annual ground rent	£3
Y P 25 years at 4 per cent, say	15 5
	— say £47
(2) Reversion to gross rent per annum	£30
<i>Deduct—</i>	
Repairs, management, and insurance at 20 per cent	£6
Nett annual income	£24

HOUSE PROPERTY	33
Brought forward	£24
Y P perpetuity deferred 25 years at 6 per cent (equals $16\frac{50}{100} - 12\frac{75}{100}$ , equals)	3 75
	—
Value	£137

(4) *Cottages*

EXAMPLES—Calculate the freehold value of a block of 32 cottages held on lease for an unexpired term of 50 years at a ground rent of £2 per annum per each cottage, the gross income now being £420 per annum. The cottages are let on weekly tenancies.

ANSWER—(1) Annual ground rent £61  
Y P 50 years at 4 per  
cent, say 21 5  
— say £1,375

(2) Reversion to rack rent of £420 p a  
*Deduct—*

Rates, taxes, repairs,  
management, and in-  
surance at 40 per cent £168

Nett annual income £252

Y P perpetuity deferred  
50 years at 7 per cent  
(equals 14 25—13 75)  
equals 5  
— £126  
Value, say £1,500

(5) *Flats*

EXAMPLE—A leasehold block of flats produces a gross income of £1,600 per annum, and is let on weekly tenancies

The lease has 50 years to run, and the ground rent is £200 per annum. Value the freeholder's interest

Answer—(1) Annual ground rent	£200
Y P 50 years at 4 per cent, say	215
	— £4,300
(2) Reversion to such rents of £1,600 p a	
<i>Deduct—</i>	
Rates, taxes, repairs, maintenance, and insurance at 10 per cent	£640
	—
Nett annual income	£960
Y P perpetuity deferred 50 years at 7 per cent (equals 11.25 - 13.75) equals	5
	— £480
Value	£4,780

*Inhabited House Duty*—This duty is collected from the occupiers of property, and is assessed on the gross rental value. The following table contains the rates of duty levied on the various kinds of properties—

Class of property	Gross value	Amount of duty payable
House property	£20-£40	3d in the £
,	£40-£50	6d in the £
Shop property	£60 and above	9d in the £
,	£20-£40	2d in the £
,	£40-£60	4d in the £
Hotels	£60 and above	6d in the £
Farmhouses	—	
Lodging houses	—	
		}{ Rates of duty as for shop property

## CHAPTER VII

### VALUATION OF BUILDINGS

It is frequently desirable to form an estimate of the cost of the construction of a particular building. For this purpose there are various methods in vogue viz cubing, calculating the floor area, and taking off the quantities from a plan. The last named is the most accurate and is executed by a quantity surveyor.

*Cubing*—A rough estimate may be obtained by this method. The method adopted for cubing a building is as follows. Take the measurements along the length and breadth of the outside walls, and the height from the bottom of the footings to half way up the roof, and place a value per cubic foot. The undermentioned prices will be found applicable to the different classes of buildings—

Class of property	Rate per cubic foot
Cottages	From 4d - 6d
farmhouses	6d - 7d
Farm buildings	3d - 4d
Offices, sheds etc	3d - 4d
Suburban villas	6d - 7d

## CHAPTER VIII

### VALUATION OF LIFE INTERESTS

IN the previous chapters we have dealt only with the valuation of properties held for a certain term, but in this chapter we shall deal with the valuation of life interests, i.e. property held for an uncertain term.

The mortality tables we contained in the valuation tables, the principal of which are—

- (1) Institute of Actuaries Tables
- (2) Carlisle Tables
- (3) Northampton Tables
- (4) Government Experience Tables

**Northampton Tables**—For the valuation of life interests these tables are generally used. There are four tables for the valuation of the following interests—

- (1) Single Lives and interest
- (2) Joint Lives
- (3) The longer of Two Lives
- (4) Longest of Three Lives
- (1) *Single Lives and Interest*

**EXAMPLE**—Calculate the value of a property held for a life now aged 30, producing a clear annual income of £50.

ANSWER—Nett Annual Income	£50
Y P life aged 30 as per Northampton Table at 6 per cent	11 68
Value	£584

(2) *Joint Lives*

EXAMPLE—Find the value of a property held during the continuance of two lives aged 30 and 50 respectively. The property is let on a three years' agreement, and produces a gross income of £40 per annum.

ANSWER—Gross annual income £40

*Deduct—*

Repairs, management, and insurance at 12 5 per cent	£5
Nett annual income	£35
Y P joint lives aged 30 and 50, as per Northampton Table at 5 per cent, say	8 59
Value, say	£300

(3) *The Longer of Two Lives*

EXAMPLE—Calculate the value of a property held on a life tenancy for the longer of Two Lives aged 25 and 45 respectively, the property now being let on a three years' agreement at £40 per annum.

ANSWER—Gross annual income £40

*Deduct—*

Repairs, management, and insurance at 12 5 per cent	£5
Nett annual income	£35
Y P longer of two lives aged 25 and 45 as per Northampton Table, at 6 per cent say	13 5
Value, say	£470

(4) *The Longest of Three Lives*

EXAMPLE—Calculate the value of a farm held for the

longest of three lives aged 15, 45, and 65 respectively. The farm is let on a yearly tenancy at £120. The Land Tax payable per annum amounts to £10, and Tithe payable per annum equals £4.

ANSWER—Gross annual income	£120
<i>Deduct—</i>	
Repairs, insurance, etc., at 5 per cent	£6
Land tax	£10
Tithe	£4
	— £20
Nett annual income	£100
Y P longest of three lives aged 15 45, and 65, as per Northampton Table at 4 per cent	185
Value	£1 850

## APPENDIX 1

### ENFRANCHISEMENT OF COPYHOLDS

The following example will illustrate the method of calculating the amount payable for the enfranchisement of a copyhold

EXAMPLE—Calculate the cost to enfranchise a house and garden let on an annual tenancy producing £40 per annum. The arbitrary fine payable is two years on alienation only. There is also a quit rent of £1 per annum, and a fine certain of £2 payable on death only. No allowance is to be made for forfeitures. The copyholder is aged 29.

#### ANSWER—

##### (1) *Arbitrary Fine*

Annual value	£40
--------------	-----

##### *Deduct—*

Repairs at 10 per cent	£4
------------------------	----

Quit rent	£1
-----------	----

—	£5
---	----

Nett annual income	£35
--------------------	-----

Y P tenant aged 29 equals 3

as per Board of Agriculture Table, and as

Arbitrary Fine is payable on alienation only, therefore

Y P equals	$\frac{3.00}{2}$ say £52
------------	--------------------------

Compensation for arbitrary fine equals	£52 0s
(2) <i>Fine certain</i> equals	£2
Payable on death only, therefore Y P equals	<del>3 00</del> 1
Compensation for fine certain equals	£1 10s
(3) <i>Quit rent</i> , equals	£1
Y P =	<u>25</u>
Compensation for quit rent equals	£25 0s
Compensation payable for enfranchisement	£78 10s

## APPENDIX II

### VALUATION FOR MORTGAGE

THE amount advised to be advanced on mortgage should not exceed two thirds of the valuation, and in some cases should not equal that amount

EXAMPLE—A freehold shop is let on a repairing lease for a term of 21 years at a rent of £100 per annum. The shop is situated in a good letting neighbourhood. What amount should be advanced on mortgage?

ANSWER—Nett annual income	£100
Y P =	20
Value	£2,000

Considering the circumstances, the amount to advise for an advance on mortgage would be £1,330 at 4 per cent

Acting upon instructions received from the client the valuer should forward a report containing the value of the property and the amount which may be advanced on mortgage. The valuation should not be submitted

## APPENDIX III

### VALUATION FOR COMPENSATION

It is frequently required to place a value upon property when being acquired by a railway company or some other undertaking. The following example will illustrate the method used in making such a valuation —

EXAMPLE — Seven cottages are let at 7s per week each, and are held on lease having a term of 30 years unexpired at ground rents of £2 5s per annum each cottage. What price should a railway company pay to the leaseholder and freeholder respectively for the compulsory purchase of the property?

ANSWER — (1) *Leaseholder's Interest*

Gross annual income, say	£127 0s
<i>Deduct—</i>	
Ground rent	£15 15s
Rates, taxes, repairs, management, and in- surance at 40 per cent, say	£50 15s
	—
	£66 10s
Nett annual income	£60 10s
Y P 30 years at 8 per cent, say	11 25
	—
Value, say	£680 0s
Add 10 per cent for forced sale as compensation	£68 0s
	—
	£748 0s

Compensation payable to the leaseholder equals, say £750

(2) *Freeholder's Interest*

(a) Ground rent per annum	£15 15s
Y P 30 years at 4 5 per cent, say	16 25
	— say £255
(b) Reversion to rack rents, say	£127
<i>Deduct—</i>	
Rates, taxes, repairs, management, and insurance at 40 per cent, say	£51
	—
Nett annual income	£76
Y P perpetuity deferred 30 years at 7 per cent (equals 14 25 — 12 50), equals	1 75
	—
Value say	£388
Add 10 per cent as compensation for compulsory purchase, say	£40
	—
	£428

Compensation payable to freeholder, say £430

ANSWER — Value of leaseholder's interest, £450

„ freeholder's „ £430

## APPENDIX IV

### TERMS AND DEFINITIONS

*Accommodation Land*—Land which owing to its position, is utilized for some special purpose

*Advowson*—Right of patronage or presentation to a Church benefice

*Agricultural Land*—Land let for farming purposes, with any buildings necessary thereto

*Benefice*—An ecclesiastical living in the Church of England

*Coparceners*—Persons inheriting real estate equally on intestacy

*Counterpart*—A copy of a lease retained by the lessor

*Deed*—A document in writing intended to affect the legal position of the parties thereto, signed and sealed by the party who is bound by it, and delivered to the party to benefit under it

*Dilapidations*—A defective condition of land or buildings resulting either from the effect of time and the elements or from some act or neglect on the part of the person or persons in possession or occupation

*Easement*—An easement is a privilege without profit which a man enjoys in connection with his land or house (called the dominant tenement) over the land or house of his neighbour (called the servient tenement)

*Emblements*—Vegetable products which are the annual results of labour

*Executor*—A person appointed by a will to carry out the directions of the testator

*Injunction*—An introductory writ by which a superior court stops or prevents some inequitable or illegal act being done

*Joint Tenants*—Tenants having one and the same interest in the whole property in undivided shares

*Mortgage*—A conveyance of land or other property by the mortgagor to the mortgagee as a security for the payment of money

*Prescription*—A custom continued until it becomes a right or has the force of law

*Prescription Act, 1832*—An act passed for shortening the periods necessary to acquire easements profits *a prendre*, etc

*Provisional Valuation*—A copy of the original valuation made under the provisions of the Finance (1909-1910) Act, 1910

*Rack Rent*—A rent of the full annual value of the property

*Royalty*—A payment made by one person to another in return for some privilege or concession

*Reversion*—An estate in expectancy which will come into possession after the determination of an existing particular estate

*Sinking Fund*—An accumulative fund set apart for special appropriation to replace capital expended or money borrowed at the end of a certain number of years

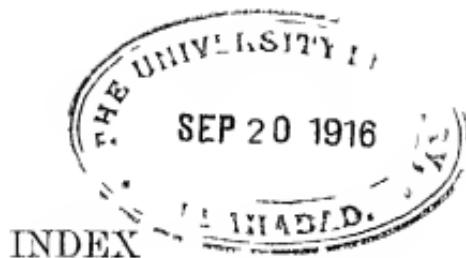
*Tenant at Will*—A tenant who holds land or tenements for no certain term, but the tenancy continues during the joint will of the landlord and tenant and no longer

*Tenant for Life*—A tenant who holds a freehold estate during the continuation of his life or for the lives of one or more other persons

*Tenants in Common*—Tenants who hold undivided land together in any proportions

*Tenant on Sufferance*—A person who occupies by right and continues in occupation without right





ACCOMMODATION Land, 3 24  
definition of *See Appendix IV*  
freehold valuation of Example, 3  
valuation of Example illustrating the method of ascertaining  
the nett rent from the rack rent 24

Advowson, definition of *See Appendix IV*

Agricultural land 2, 24  
definition of *See Appendix IV*  
freehold valuation of Example 2  
valuation of Example illustrating the method of ascertaining  
the nett rent from the rack rent 24

BENEFICI definition of *See Appendix IV*

Building land, definition of, 3  
Unsecured ground rents valuation of Example 3 4

Buildings, valuation of 35

Business promises 6 7, 25, 26 29-31

CAPITAL, 1

Compensation valuation for *See Appendix III*

Co-partners, definition of *See Appendix IV*

Copyholds, enfranchisement of Example *See Appendix I*

Cottages, freehold valuation of Example, 9  
Example illustrating the method of ascertaining the nett annual  
value from the rack rent, 28  
Example with revision to rack rents, 33

Counterpart definition of *See Appendix IV*

Cubing, 35

DISBURSEMENTS, table of Usually deducted from rack rents to ascertain  
the nett rent, 23

Deed, definition of *See Appendix IV*

Definitions and Terms *See Appendix IV*  
 Dilapidations definition of *See Appendix IV*

EASEMENTS definition of *See Appendix IV*  
 Emblements definition of *See Appendix IV*  
 Empties, 23  
 Executor definition of *See Appendix IV*

FRETS, 9 10 28 29 33 34  
 freehold valuation of Example 9 10  
 valuation of Example illustrating the method of ascertaining the  
 nett rent from the rack rent, 28 29  
 valuation of Example with revision to rack rent, 33 34  
 Freehold property valuation of 2-10

GROUND rent definition of 3  
 Ground rents, 3-5 13 14  
 freehold valuation of Example 3  
 leasehold, valuation of Example, 14

House property valuation of 6-10 13 14 25-14

INHABITED House Duty, 34  
 table of rates levied, 34  
 Injunction definition of *See Appendix IV*  
 Interest, 1

JOINT LIVES, interests valuation of Examples, 16-18  
 Joint tenants, definition of *See Appendix IV*

LANDLORD's property tax 22  
 Land tax, 22  
 Large houses, 8, 27, 31  
 freehold, valuation of Example, 8  
 valuation of, illustrating the method of ascertaining the nett rent  
 from the rack rent, 27  
 valuation of Example with revision to rack rents, 31  
 Life interests, valuation of 36-38  
 Local rates, 22  
 Longer of two lives interest, valuation of Example, 37  
 Longest of three lives interest, valuation of, Example, 37-38

MANAGEMENT, 22  
 Middle class houses, 8 27 32  
     freehold, valuation of Example 8  
     valuation of Example illustrating the method of ascertaining  
       the nett rent from the rack rent 27  
     valuation of Example with reversion to rack rent, 32  
 Mortality Tables 36  
 Mortgage 45  
     definition of *See* Appendix IV  
     valuation for *See* Appendix II

Offices 7 26 30 31  
     freehold, valuation of Example 7  
     valuation of Example illustrating the method of ascertaining  
       the nett rent from the rack rent 26  
     valuation of Example with reversion to rack rent 30 31  
 Outgoings 22 23

PREScription, definition of *See* Appendix IV  
 Prescription Act, 1832 *See* Appendix IV  
 Premiums Examples, 16 17  
 Prices, value per cubic foot for various buildings 35  
 Provisional valuation, definition of *See* Appendix IV

RACK rent definition of *See* Appendix IV  
 Rates per cent, 10 13  
     table of, for valuing freehold properties, 10  
     leasehold properties, 13  
 Renewal of leases, calculation of fine payable Examples 20 21  
 Rent charge, 23  
 Residential premises, valuation of, 8-10, 27-29 31-34  
 Reversions, 18-20 29-34  
     explanation, 18  
     freehold, valuation of Examples, 18 19  
     leasehold, valuation of Examples 19 20  
 Royalty, definition of *See* Appendix IV

SHOPS 6, 25, 29  
     freehold, valuation of Example, 6  
     valuation of Example illustrating the method of ascertaining the  
       nett rent from the rack rent 26  
     valuation of Example with reversion to rack rent, 20

Single life interest valuation of Example 36

Sinking fund 12 13  
 definition of *See* Appendix IV  
 Example 12 13

Small houses, 8 9 27 28, 32 33  
 freehold valuation of Example 8 9  
 valuation of illustrating the method of ascertaining the nett rent  
 from the real rent, 27, 28  
 valuation of Example with reversion to real rent, 32 33

Surveyor's report, 15

TENANT at will, definition of *See* Appendix IV

Tenant for life definition of *See* Appendix IV

Tenant on sufferance definition of *See* Appendix IV

Tenants in common *See* Appendix IV

Terms and definitions *See* Appendix IV

Tithes, 22

UNDEVELOPED land duty 23

VALUATION, principles of 1 2

WAREHOUSES and factories 6 23 26 30  
 freehold valuation of Example 6  
 valuation of Example illustrating the method of ascertaining  
 the nett rent from the real rent, 25 26  
 valuation of Example with reversion to real rents 30

YEARS' purchase, 1, 2  
 definition of 1  
 explanation, 1 2

THE END

# IMPORTANT BOOKS ON VALUATION

---

Just Published      **Third Edition**      Demy 8vo      Cloth  
352 Pages      Price 7s 6d net

## Valuation of Real Property

A Guide to the Principles of Valuation of Land and Buildings, etc., for various purposes, including the Taxation of Land Values

*With Numerous Examples*

By CLARENCE A. WEBB, F.S.I.  
Author of *Rating and Assessment, etc.*

*Third Edition, Revised and Enlarged*

By ARTHUR HUNNINGS, I.S.I.  
Rating Surveyor to the County Borough Council  
Lecturer at the Northern Polytechnic Institute

---

*BY THE SAME AUTHOR*

Demy 8vo      Cloth      258 pages      Price 7s 6d net

## THE LAW AND PRACTICE OF Rating & Assessment

A Handbook for Overseers, Members of Assessment Committees, Surveyors, and others interested in Rating and Valuation

---

LONDON      CROSBY JOCKWOOD AND SON  
7 STATIONERS HALL COURT, E.C.

# Inwood's Tables of Interest and Mortality for the Purchasing of Estates

## and VALUATION OF PROPERTIES including

ADVOVSONS	LEASEHOLDS
ASSURANCE POLICIES	LIFE INTERESTS
COPYHOLDS	MORTGAGES
DEFERRED ANNUITIES	PERPETUITIES
FREEHOLDS	RENEWALS OF LEASES
GROUND RENTS	REVERSIONS
IMMEDIATE ANNUITIES	SINKING FUNDS

Etc Etc

*Thirtieth Edition, Revised and Extended*

BY

WILLIAM SCHOOLING FRAS

WITH LOGARITHMS OF NATURAL NUMBERS

AND

THOMAN'S LOGARITHMIC INTEREST AND ANNUITY TABLES

## SYNOPSIS OF CONTENTS

INTEREST TABLES—Table for the Purchasing of Leases, Estates, etc., 12-10%—Present Value of the Reversion of a Perpetuity, 12-10%—Present Value of £1 and £1 per Annum at 15%—Amount and Present Value of £1 and £1 per Annum, 1-10%—Present Value of a Perpetuity—Value of Reversion to a Perpetuity—Fines for Renewing Leases—Yield per Cent and Years' Purchase—Interest, Amount, and Discount—Sinking Funds—Value of Annuity—Nominal and Effective Rates of Interest—Factors for Converting Half yearly and Quarterly Annuities—Amount Doubled by Interest—Decimals of 1 Year and of £1  
MORTALITY TABLES SINGLE LIVES AND INTEREST—Value of Annuities, Various Tables—Payments to secure £1 at Death—Reversion to Perpetuity at Death  
TWO AND THREE LIVES AND INTEREST—Joint Life Benefits—Last Survivor Benefits—Contingent Survivorship Benefits—Premium Conversion Tables—Government Assurances and Annuities—British Life Offices, Average Rates—Income Tax Tables LOGARITHMIC TABLES

LONDON CROSBY LOCKWOOD AND SON

7 STATIONERS HALL COURT LUDGATE HILL

# USEFUL BOOKS FOR VALUERS

Dem. 8vo, cloth, 168 pages

Price 7s 6d net

## The Valuation of Mineral Property

### RULES AND TABLES

By T. A. O'DONAHUE, M.E., F.G.S., Editor of "Mining Engineering", First Class Certificated Colliery Manager, Member of the Institution of Mining Engineers, Author of "Mining Calculations", "Mining Formulae", etc

LIST OF CONTENTS—Chapters 1, Introduction—2, Accumulative and Incrementary Rates of Interest—3, The Redemption of the Principal—4, Discounting Deferred Values—5, Definitions—6, Rules and Examples—7, Miscellaneous Examples illustrating the Use of the Tables  
INTEREST TABLES—1, Amount and Present Value of £1 and £t per Annum—2, Sinking Fund for the Redemption of Capital  
APPENDIX—Logarithms

Dem. 8vo, cloth, 340 pages

Price 10s 6d net

## A Practical Handbook upon Agricultural Tenancies

For the use of Landlords, their Agents and Tenants, together with the text of the Agricultural Holdings Acts, 1908 (English and Scottish), and the Small Holdings and Allotments Acts, 1908, by CHARLES EDWARD CURTIS, F.S.I., and ROBERT ABERCROMBY GORDON, M.A., LL.M. (Cantab.), of the Inner Temple, and South Eastern Circuit, Barrister-at-Law

LONDON CROSBY LOCKWOOD & SON,  
STATIONERS' HALL COURT, E.C., AND 5 BROADWAY,  
WESTMINSTER, S.W.

# USEFUL BOOKS FOR VALUERS

---

## Tabular Aids to Valuation

For ascertaining the Purchase Price of Building Estates, Percentage required to cover Interest and Sinking Fund, Cost of Buildings, Deductions for Maintenance, Comparative Site Values, etc. By GEO T MCCAW, B A I, M A (T C D), Fellow of the Surveyors' Institution, and F OLIVIER IRONS, B A I, M A (T C D), Valuer and Surveyor, General Valuation Office, Ireland, Fellow of the Surveyors Institution Crown 8vo, cloth, 81 pages 5s net

## Agricultural Surveyor and Estate Agent's Handbook

Of Practical Rules, Formulae, Tables, and Data A Comprehensive Manual for the use of Surveyors, Agents, Landowners, and others interested in the Equipment, the Management or the Valuation of Landed Estates By TOM BRIGGS, Agricultural Surveyor and Valuer, Author of "The Agricultural Valuer's Assistant," etc Second Edition, Revised 464 pages, with Illustrations Fcap 8vo, leather 7s 6d net

## Agricultural Valuer's Assistant

A Practical Handbook on the Valuation of Landed Estates, including Example of a Detailed Report on Management and Realisation, Forms of Valuations of Tenant Right, Lists of Local Agricultural Customs, Scales of Compensation under the Agricultural Holdings Act and a Brief Treatise on Compensation under the Lands Clauses Acts, etc By TOM BRIGGS, Agricultural Valuer, Author of "The Agricultural Surveyor and Estate Agent's Handbook" Fifth Edition, Revised, with Appendix containing a Digest of the Agricultural Holdings Act, 1908, together with the full text of the Act and practical commentary thereon Crown 8vo, cloth 6s net

---

LONDON CROSBY LOCKWOOD & SON  
7 STATIONERS' HALL COURT, E C, AND 5 BROADWAY,  
WESTMINSTER, S W

LIST OF WORKS  
ON  
ARCHITECTURE, BUILDING,  
DECORATIVE ARTS, CARPENTRY,  
TIMBER, SANITATION, &c

---

**ACOUSTICS OF PUBLIC BUILDINGS** The Laws of Sound as applied to the Arrangement of Buildings. By Professor T. ROOKS SMITH F R I B A. New Edition revised. With numerous Illustrations. Crown 8vo cloth 1/6

**ALPHABETS, ANCIENT & MEDIÆVAL ORNAMENTAL.** From the Eighth Century with Numerals including Gothic Church Text large and small German Italian Arabesque Initials for Illumination, Monograms Crosses &c, for the use of Architectural and Engineering Draughtsmen. Missal Painters Masons Decorative Painters, Lithographers Engravers Carvers &c, &c Collected and Engraved by F. DELAMOTTE and printed in Colours. New and Cheaper Edition Royal 8vo oblong ornamental boards 2/6

**ALPHABETS, PLAIN AND ORNAMENTAL, MODERN** Including German, Old English, Saxon, Italic, Perspective, Greek, Hebrew, Court Hand, Engineering, Tuscan, Riband, Gothic, Rustic and Arabesque with several Original Designs and an Analysis of the Roman and Old English Alphabets large and small and Numerals, for the use of Draughtsmen, Surveyors, Masons, Decorative Painter, Lithographers, Engravers, Carvers &c Collected and Engraved by F. DELAMOTTE and printed in Colours New and Cheaper Edition Royal 8vo oblong ornamental boards 2/6

<sup>1</sup> There is comprised in it every possible shape into which the letters of the alphabet and numerals can be formed and the talent which has been expended in the execution of the various plain and ornamental letters is wonderful. — *Standards* 1

**ALPHABETS AND INITIALS, MEDIÆVAL** By F. G. DELAMOTTE. Containing 32 Plates and Illuminated Title printed in Gold and Colours. With an Introduction by J. WILLIAMS BROOKS. Fifth Edition. Small 4to ornamental boards Net 5/0

**ALPHABETS** See also ILLUMINATING

**ARCHES, PIERS, BUTTRESSES** By WILLIAM BLAND. Crown 8vo cloth 1/6

**ARCHITECTURE—ORDERS** The Order<sup>c</sup> and their Aesthetic Principles By W H LYNN Crown 8vo 1/6

**ARCHITECTURE—STYLES** The History and Description of the Styles of Architecture of Various Countries, from the Earliest to the Present Period By F THOMAS BURY F R I B A & C Illustrated Crown 8vo cloth 2/0

**ORDERS AND STYLES OF ARCHITECTURE** in One Vol 3/6

**ARCHITECTURE—DESIGN** The Principles of Design in Architecture as deducible from Nature and exemplified in the Works of the Greek and Gothic Architects By EWEN I GARRETT Architect Crown 8vo cloth 2/6

We know no work that we would sooner recommend to an attentive reader desirous to obtain clear views of the nature of architectural art. The book is a valuable one.—*Builder*

\* The three preceding Works in One handsome Vol half bound entitled  
"MODERN ARCHITECTURE" price 6/0

**ARCHITECTURE OF MARCUS VITRUVIUS POLLIO** In Ten Books Translated from the Latin by J GUILF With 23 Plates Crown 8vo cloth 5/0

**ARCHITECTURE—GRECIAN** An Inquiry into the Principles of Beauty in with an Historical View of the Rise and Progress of the Art in Greece By the EARL OF ABERDEEN Crown 8vo cloth 1/0

The two preceding Works in one handsome Volume half bound, entitled  
"ANCIENT ARCHITECTURE," price 6/0

**ARCHITECTURE, MECHANICS OF** A Treatise on Applied Mechanics, especially Adapted to the Use of Architects By E W TATE, M A Author of "The Science of Building, &c Second Edition Enlarged Illustrated with 125 Diagrams Crown 8vo, cloth 7/6

The book is a very useful and helpful manual of architectural mechanics.—*Builder*

**ARCHITECT'S GUIDE** Being a Text Book of Useful Information for Architects Engineers Surveyors Contractors Clerks of Works, &c By F ROGERS Crown 8vo cloth 3/6

**ARCHITECTURAL MODELLING IN PAPER** The Art of By T A RICHARDSON Crown 8vo, cloth 1/6

A valuable aid to the practice of architectural modelling.—*Builder's Weekly Reporter*

**ARCHITECTURAL PERSPECTIVE** The whole Course and Operations of the Draughtsman in Drawing a Large House in Linear Perspective Illustrated by 43 Folding Plates By F O FERGUSON Third Edition 8vo, boards 3/6

It is the most intelligible of the treatises on this ill treated subject that I have met with.—  
E INGRAMS HELL ESQ. in the *RIBA Journal*

**ARCHITECTURAL PERSPECTIVE FOR BEGINNERS**  
For Students and Amateurs in Architecture Painting &c By G PYNE  
Crown 8vo cloth 2/0

**ARCHITECTURAL TERMS, DICTIONARY OF** Building,  
Engineering, Mining, Metallurgy, Archaeology, the Fine Arts &c By  
JOHN WEALE Sixth Edition Edited by ROBT HUNT F.R.S Numerous  
Illustrations Crown 8vo cloth 5/0

**BRICKLAYING** General Principles of Practical Bricklaying,  
Arch Drawing Cutting Setting and Pointing Paving, Tiling &c By  
ADAM HAMMOND With 68 Woodcuts Crown 8vo cloth 1/6

**BRICK-CUTTING AND SETTING** By ADAM HAMMOND  
With 90 Engravings Crown 8vo cloth 1/6

**BRICKWORK** Embodying the General and Higher Principles  
of Bricklaying Cutting and Setting with the Application of Geometry to  
Roof Tiling &c By F WALKER Crown 8vo cloth 1/6

**BRICKS AND TILES** Rudimentary Treatise on the Manufacture of By E. DONSON Author of "Art of Building &c Twelfth Edition fully revised, and several new chapters added by ALFRED B. SEARLE, Author of Modern Brickmaking Cantor Lecturer on Brickmaking &c  
260 pages Illustrated Crown 8vo, cloth 3/0  
Extra cloth boards 3/6

The best handbook on the subject. We can recommend it as a good investment. —See later

**BRICK AND TILE BOOK** Comprising Brick and Tile Making by E. DONSON M Inst C E Practical Bricklaying by A. HAMMOND, Brick Cutting, and Setting by A. HAMMOND 350 pp with 270 Illustrations strongly half bound 6/0

**BUILDER'S PRICES** See Lockwood's Builder's Price Book, page 8

**BUILDING, SCIENCE OF** An Elementary Treatise on the Principles of Construction By E. WYNDHAM TARN M A Lond Fourth Edition Crown 8vo cloth 3/8

**BUILDING, ART OF** General Principles of Construction Character Strength and Use of Materials Preparation of Specifications and Estimates &c By EDWARD DONSON M Inst C E Fifteenth Edition, revised by J. P. ALLEN Lecturer on Building Construction at the Durham College of Science Crown 8vo cloth 2/0

**BUILDING** A Book on Civil and Ecclesiastical Building By Sir EDMUND BECKETT Bart LLD Second Edition Crown 8vo cloth 4/6 cloth boards 6/6

A book which is always amusing and nearly always instructive. —See later

**BUILDING ESTATES** A Treatise on the Development, Sale, Purchase, and Management of Building Land By F. MAITLAND Fourth Edition Crown 8vo cloth 2/0

This book should undoubtedly be added to the library of every professional man dealing with building land. —See later

**BUILDING, COTTAGE** By C BRUG, ALLEN Twelfth Edition with Chapter on Economic Cottages or Allotments by L E ALLEN Crown 8vo cloth **2/0**

**BUILDING CONSTRUCTION (PRACTICAL)** A Hand book for Students Preparing for Examinations and a Book of Reference for Persons Engaged in Building By JOHN PARNELL ALLEN P A S I Formerly Lecturer on Building Construction at the Armstrong College of Science Newcastle on Tyne Fifth Edition Revised and Enlarged Medium 8vo 396 pp with over 1300 Illustrations cloth **Net 7/6**

**BRICKS AND THEIR COMPOSITION**—BRICK BOND AND ITS APPLICATION—BRICK REINFORCING AND ARCHES—DAMP AND ITS PREVENTION—BUILDING STONING—STONE DRESSINGS—WOOD FOR BUILDING PURPOSES—WOOD FLOORS—INTERIORS—ROOF—IRON AND STEEL—KIVITS AND RIVETING—IRON ROOFS—COVERINGS FOR ROOFS—IREPROOF FLOORS—JOINTS AND MOLDINGS IN JOINERY—DOOR—WINDOW—WOODEN STAIRS—SKYLIGHTS AND LANTERNS—PLASTERING AND PAINTING—CENTRING FOUNDATIONS &c—STRESSES—CALCULATION OF STRAINS—SANITATION—IREPLACES—WEIGHTS AND STRENGTH—QUANTITIES AND PRICES &c AND APPENDICES

The author depends nearly as much on his diagrams as on his type. The plates suggest the hand of a man of experience in building operations—and the volume must be a blesse to many teachers as well as students. —*The Architect*

**BUILDING INSPECTION, ELEMENTARY MANUAL OF, or How to Become a Building Inspector** By WM R PURCHASE Building Inspector to the Borough of Hove Author of Practical Masonry 136 pp With 9 Plates of Diagrams Crown 8vo cloth **Net 2/6**

**DUTIES AND QUALIFICATIONS OF BUILDING INSPECTORS TO MUNICIPAL COUNCILS**—MEMORANDUM OF THE LOCAL GOVERNMENT BOARD AS TO BYE LAWS WITH RESPECT TO NEW STREETS BUILDINGS DRAINAGE &c—SETTING OUT A BUILDING—FOUNDATIONS IN SLADE OF GROUND—EXCAVATION MEMORANDA FOUNDATIONS &c—CARRIERS—STOCKS—PIERS—CHUFTS—BUILDING—FOOTINGS OF A WALL—CHIMNEYS—FLUES—DAMP PROOF COURSES—MORTAR—REINFORCING—BRICK WORK—MEMORANDA—CEMENT—RE TANNING WALLS—STONE MASONRY—TERRA COTTA—TIMBER—PIERS—PILES—PILLARS—ROOF COVERINGS—PLASTERING—INTERIORS MEMORANDA—DRAINAGE & PLAN BOOK—APPENDIX CONTAINING USEFUL MEMORANDA FOR BUILDING INSPECTORS

**BUILDING Every Man His Own Builder** A Book for Every Man who owns a Piece of Land giving Concise Directions How to Build a House from the Foundations to the Roof Plastering Floor Work Plumbing Draining Walls and Well Staking &c By G GORDON SAMSON Author of How to Plan a House and Houses Villas and Bungalows for Britshers and Americans Abroad Second Edition revised 362 pp 292 Illus Demy 8vo cloth **[Just Published] Net 5/0**

**BUNGALOW RESIDENCES** A Handbook for all interested in Building By PERCIVAL T HARRISON A M Inst C E M R S I Borough Engineer and Surveyor Dorchester 84 pp Illustrated by 22 Plates and numerous Text Diagrams Demy 8vo cloth **Net 3/6**

INTRODUCTION—BYE LAWS—CHOICE OF SITE—PLANNING—EXTERIOR DESIGN—MATERIALS—SANITATION—LIGHTING—COOKING &c

M Harrison is to be thanked and congratulated for his welcome treatise on a subject that has a distinct future. —*Illustrated Carpet and Bed Linen*

**CABINET-MAKER'S GUIDE TO THE ENTIRE CONSTRUCTION OF CABINET WORK** By RICHARD BIRSMAN Illustrated with Plans Sections and Working Drawings Crown 8vo cloth **2/6**

**CARPENTRY AND JOINERY** The Elementary Principles of Carpentry Chiefly composed from the Standard Work of T TUNISON With Additions and a Treatise on Joinery by E W TARN M A Eighth Edition Crown 8vo cloth **3/6**

Atlas of 35 Plates to accompany and illustrate the foregoing book With Descriptive Letterpress 4to **6/0**

These two volumes form a complete treasury of carpentry and joinery and should be in the hands of every carpenter and joiner in the Empire. —*Illustrated Carpet and Bed Linen*

**CIRCULAR WORK IN CARPENTRY AND JOINERY**

A practical Treatise By GEORGE COLLINGS Fifth Edition Crown 8vo  
cloth 2/6

Cheap in price clear in definition and practical in the examples selected —*By the Author*

**CLERK OF WORKS** A Handbook on the Supervision of

Building Operations By GEORGE MELTON Licentiate R. I. B. A. M. R. S. S. I.,  
Member of the Concrete Institute Lecturer on Building Construction  
(Higher Division) and Builders Quantities (Ordinary and Honours Grade)  
at the Borough Polytechnic 200 pages Crown 8vo cloth

*Just published Net 2/6*

**COLOURING, GRAMMAR OF** Applied to Decorative Paint

ing and the Arts By G. FIELD New Edition enlarged by E. A. DAVIDSON  
With Coloured Plates Crown 8vo cloth 3/0

The book is the most useful review of the properties of pigments —*By the Author*

**COMPLETE MEASURER** Setting forth the Measurement of

Boards Glass Timber and Stone By R. HORTON Sixth Edition  
Crown 8vo cloth 4/0

**CONCRETE ITS NATURE AND USES** A Book for

Architects Builders Contractors and Clerks of Works By G. L. SUR-  
CLIFFE A. R. I. B. A. Second Edition Revised and Enlarged 396 pp. with  
Illustrations Crown 8vo, cloth Net 9/0

The manual fills a long felt gap. It is as useful as a student's  
guide and an architect's book of reference —*For the Royal Institute of British Architects*

**CONCRETE, REINFORCED** See page 11

**DECORATION (ELEMENTARY)** As applied to Dwelling  
Houses &c An Elementary Treatise By J. W. FACEY Cr 8vo cloth

2/0

The principles which ought to guide the decoration of dwelling houses are clearly set  
forth and elucidated by examples, while full instructions are given to the learner —*By the Author*

**DECORATION (PRACTICAL)** A Guide to the Art of Orna-  
mental Painting the arrangement of Colours in Apartments and the

Principles of Decorative Design By JAMES W. FACEY Crown 8vo  
cloth 2/6

\*\* The last two works in one handsome Vol. half bound entitled HOUSE  
DECORATION ELEMENTARY AND PRACTICAL price 5/0

**DECORATOR'S ASSISTANT** A Modern Guide for Decora-  
tive Artists and Amateurs Painters Writers Gilders &c Containing ap-  
plications of 600 Receipts Rules and Instructions with a variety of Infor-  
mation for General Work connected with every Class of Interior and Exterior  
Decorations &c Ninth Edition Crown 8vo 1/0

Filled with receipts of value to decorative painters, gilders &c. The book contains the ger of  
larger treatises on colour and technical processes. It would be difficult to meet with a work so full  
of varied information on the painter's art —*By the Author*

**DRAWING** Practical Rules for the Builder and Young Student  
in Architecture By G. PYNE 410 cloth 7/6

**DWELLING-HOUSES** Their Erection Illustrated by a Per-  
spective View Plans Elevations and Sections of a Pair of Villas with  
the Specification Quantities and Estimates By S. H. BROOKS Crown 8vo  
cloth 2/6

**EMBROIDERER'S BOOK OF DESIGN** / Containing Initials, Emblems, Cyphers, Monograms, Ornamental Borders, Ecclesiastical Devices, Medieval and Modern Alphabets, and National Emblems. Collected by F DELAMOTTE and printed in Colours. Oblong royal 8vo ornamental wrapper. **Net 2/0**

**FARM BUILDINGS** Their Arrangement and Construction with Plans and Estimates By Professor J SCOTT Crown 8vo cloth **2/0**

**FIRE PROTECTION IN BUILDINGS** A Practical Treatise for Engineers, Architects, Surveyors and Property Owners. By HAROLD G HOLT A R I B A 180 pages with Diagrams and Illustrations. Demy 8vo cloth. **[Just published Net 8/6**

**FORESTRY, PRACTICAL** and its Bearing on the Improvement of Estates. By CHARLES E CURTIS, F S I late Professor of Forestry Field Engineering and General Estate Management at the College of Agriculture Downton. Third Edition, Revised and Enlarged. Crown 8vo cloth **Net 3/6**

**PREFATORY REMARKS — OBJECTS OF PLANTING — CHOICE OF A FORESTER — CHOICE OF SOIL AND SITE — LAYING OUT OF LAND FOR PLANTATIONS — PREPARATION OF THE GROUND FOR PLANTING — DRAINAGE — PLANTING — DISTANCES AND DISTRIBUTION OF TREES IN PLANTATIONS — TREES AND GROUND GAME — ATTENTION AFTER PLANTING — THINNING OF PLANTATIONS — PRUNING OF FOREST TREES — REALIZATION — METHODS OF SALE — MEASUREMENT OF TIMBER — MEASUREMENT AND VALUATION OF LARCH PLANTATION — FIR LINES — COST OF PLANTING — AN ECONOMIC ESSAY ON THE PLANTING OF WASTE LANDS**

Mr. Curtis has in the course of a series of short pithy chapters afforded much information of a useful and practical character on the planting and subsequent treatment of trees. — *From treated Carpentry and Building*

**FRETCUTTING THE ART OF MODERN** By JOHN MALINSON 150 pages, with numerous Illustrations. Crown 8vo cloth **Net 1/6**

**INTRODUCTORY — THE WORKROOM — WOODS — DESIGNS — TOOLS — METHODS OF TRANSFERRING — DUPLICATING AND COPYING — DRILLING AND CUTTING OUT — HINTS TO MACHINISTS — WIRING — LILING — GLUING AND FITTING — OVERLAYS — FITTINGS — MISCELLANEOUS HINTS — HOW TO MAKE UP PAY — PAYING ORDERS — FRET CUTTING IN METAL &c**

**GLASS STAINING, AND PAINTING ON GLASS** From the German of Dr. GESSERT and EMANUEL OTTO FROMBERG With an Appendix on The Art of Enamelling. Crown 8vo cloth **2/6**

**GRAINING AND MARBLING** See VAN DER BURG'S 'Imitation of Woods and Marbles' page 9

**HANDRAILING** A Practical Treatise showing new and Simple Methods. By GEO COLLINGS Third Edition Including a Treatise on Stairbuilding. Crown 8vo, cloth **2/6**

Of practical utility in the execution of this difficult branch of joinery. — *Bruton*

**HEALTH OFFICER'S POCKET-BOOK** A Guide to Sanitary Practice and Law. For Medical Officers of Health, Sanitary Inspectors, Members of Sanitary Authorities &c. By EDWARD F WILLOUGHBY, M D (Lond.) &c. Second Edition Revised and Enlarged. Fcap 8vo leather **Net 10/6**

We recommend all those engaged in practical sanitary work to furnish themselves with a copy for reference. — *Sanitary Year 1st*

**HEATING BY HOT WATER** See "Steam and Hot Water Heating and Ventilation" **1/-**

**HINTS TO YOUNG ARCHITECTS** By GEORGE WIGHTwick Architect, Author of The Palace of Architecture &c. Sixth Edition revised and enlarged, by G HUSKISSON GUILLAUME Architect. Crown 8vo cloth **3/6**

**HOUSE-OWNER'S ESTIMATOR**, or What will it Cost to Build, Alter or Repair? A Price Book for Unprofessional People as well as the Architectural Surveyor and Builder. By J. D. SIMON. Edited by F. T. W. MILLER, A.R.I.B.A. Fifth Edition Carefully Revised. Crown 8vo cloth  
In two years it will repay its cost a hundred times over. —*Field* **Net 3/6**

**HOUSE PAINTING, GRAINING, MARBLING, AND SIGN WRITING** With a Course of Elementary Drawing and a Collection of Useful Receipts. By E. A. DAVIDSON. Tenth Edition Coloured Plates. Crown 8vo cloth  
\* \* \* The above in cloth boards strongly bound **6/0**

**HOUSE PLANNING—HOW TO PLAN A HOUSE** A Book for all about to Build. By G. GORDON SAMSON. Second Edition Revised 150 pages. With Plans and numerous Folding Plates. Demy 8vo cloth  
[Just put back] **Net 2s**

GENERAL REMARKS ON THE PLANNING AND ARRANGEMENT OF HOUSES—PLANS IN DETAIL—HOUSES WITH FOUR RECEPTION ROOMS—HOUSES WITH THREE RECEPTION ROOMS—DETACHED VILLAS—BUILT-DETACHED VILLAS—TERRACE HOUSES—COTTAGE DWELLINGS FOR THE WORKING CLASSES—STABLES—HINTS ON LAYING OUT GARDENS—HINTS ON PLANNING DRAWING

The book should be of considerable service to those who wish to acquire a rudimentary knowledge of planning either for constructive or critical purposes. —*Scammon*

**HOUSE PROPERTY** A Popular and Practical Handbook to the Purchase, Tenancy and Compulsory Sale of Houses and Land including Dilapidations and Fixtures with Examples of all kinds of Valuations. Information on Building and on the right use of Decorative Art. By E. L. TARBUCK, Architect and Surveyor. Seventh Edition. Demy cloth  
The advice is thoroughly practical. —*Law Journal*  
For all who have dealings with house property this is an indispensable guide. —*Decroration*  
Carefully brought up to date, and much improved by the addition of a division on Fine Art  
A well written and thoughtful work. —*Land Agents Record*

**HOUSES, VILLAS, COTTAGES, AND BUNGALOWS FOR BRITISHERS AND AMERICANS ABROAD** A Book showing How they should be Built and what they ought to Cost. By G. GORDON SAMSON. Author of *How to Plan a House*. 147 pages with 39 full page and many other Illustrations, including Plans and External Views of 18 different Houses, Bungalows, and Villas. Demy 8vo cloth **Net 3/6**

**ILLUMINATING AND MISSAL PAINTING ON PAPER AND VELLUM** A Practical Treatise on Manuscript Work Testimonials and Herald Painting. With Chapters on Lettering and Writing and on Medieval Burnished Gold. With a coloured Plates. By PHILIP WHITHARD. First Class Diploma for Illuminating and Herald Painting. Printing Trades Exhibition 1906. New and cheaper edition. 156 pages. Crown 8vo cloth **Net 1/6**

**ILLUMINATION, ART OF** A Primer for the Use of Beginners, with a Rudimentary Treatise on the Art. Practical Directions for its Exercise and Examples taken from Illuminated MSS., printed in Gold and Colours. By F. DELAMOTTE. New and Cheaper Edition. Small 4to ornamental boards  
The examples of ancient MSS. recommended to the student which with much good sense, the author chooses from collections accessible: all are selected with judgment and knowledge as well as taste. —*Athenaeum*

**JOINTS MADE AND USED BY BUILDERS** By W. J. CHRISTY. With 160 Woodcuts. Crown 8vo cloth **3/0**

**LAW FOR ARCHITECTS, BUILDERS, &c** See **EVERY MAN'S OWN LAWYER** A Handybook of the Principles of Law and Equity. By a Barrister. Fifteenth (1913) Edition Revised and Enlarged. Including Abstracts of the Legislation of 1912 of especial interest to Architects and Builders such as the National Insurance Act and many other recent Acts. Large Crown 8vo cloth 350 pp  
[Published annually] **Net 6/6**

Admirably done, admirably arranged and admirably cheap. —*I read it in v.*  
A dictionary of legal facts well put together. The book is a very useful one. —*Specs after*

**LETTER PAINTING MADE EASY** B. J. G. BADENOCH  
With 12 full page Engravings of Examples Crown 8vo cloth 1/6

A boy at present 14 who fits the sum out decent work. For studying, this system has  
misplaced his position —A. G. J. W. H. 1/6

**LIGHT** An Introduction to the Science of Optics. Designed for  
the Use of Students of Architecture, Engineering, and other Applied Sciences  
By E. W. TARN M.A. Crown 8vo cloth 1/6

**LIGHTNING CONDUCTORS, MODERN** An Illustrated  
Supplement to the Report of the Lightning Research Committee of 1905  
also the Phoenix Fire Office 1910 Rules with Notes to the Methods of  
Protection and Specifications. By KILLINGTON WILSON M Inst C E  
M.I.E.E. Honorary Secretary to the Lightning Research Committee  
Second Edition with additions 152 pp with illustrations Medium 8vo  
cloth

The information given is most valuable. —*Electrician and Engineer*

This work now appears with some additions to it noticeably enhance its value. —*Architectural Review*  
This is the most important addition to the Phoenix Lightning Rules. There are several new illustrations  
including a small table giving the number of lightning strikes which will be struck with  
lightning on February 8, 1906. —*Architectural Review*

Some 77 illustrations are included, many of which are of a particularly interesting nature  
especially those showing the effect of lightning strikes on protected and unprotected buildings. —  
*Architectural Review*

**LIMES, CEMENTS, MORTARS, CONCRETES, MASTICS,  
PLASTERING &c** By G. R. BUNNELL C.E. Fifteenth Edition  
Crown 8vo cloth 1/6

**LOCKWOOD'S BUILDER'S PRICE BOOK** A Comprehensive Handbook of the Latest Prices and Data for Builders, Architects, Engineers and Contractors. Reconstructed, Rewritten and Greatly Enlarged By FRANCIS T. W. MILLER Crown 8vo cloth  
[Published annually] 4/0

LASTEST PRINTS OF LATEST KIND OF MATERIAL AND LATEST RATES OF LABOUR IN TRADES CONNECTED WITH BUILDING—TABLES FOR VALUATION OF LUMBER, LUMBERS &c.—WAGES TABLES—IMPROVED NOTES AND MIMORANDA—THE FORM OF BUILDING CONTRACT ISSUED BY THE R.I.B.A.—A FULL SECTION ON ELECTRIC LIGHTING BY A. P. HANLAM, M.I.E.E.—SUPPLEMENT CONTAINING THE LONDON BUILDING ACTS 1844 TO 1908 WITH LARGES ANNOTATIONS ON ACTS NOW IN FORCE—NOTES OF IMPORTANT DECISIONS IN THE SUPERIOR COURTS, BY A. J. DAVID B. A. LL. M. OF THE INNER TEMPLE, BARRISTER AT LAW—BY LAWS AND OTHER REGULATIONS NOW IN FORCE—AN INDEX TO THE ACTS AND REGULATIONS

An excellent book of reference. —*Architect*

Completely revised and well arranged, legible and well bound. —*British Architect*

**MASONRY AND STONECUTTING** The Principles of Masonic Projection and their Application to Construction By E. Dobson, M.R.I.B.A. Crown 8vo cloth 2/6

**MASONRY** A Practical Guide to the Art of Stone Cutting  
Comprising the Construction, Setting Out and Working of Stairs, Circular Work, Arches, Niches, Domes, Pendentives, Vaults, Tracery, Windows &c to which are added Supplements relating to Masonry, Traversing and Quantity Surveying and to Building Stones and Marbles and a Glossary of Terms. For the Use of Students, Masons and Craftsmen. By W. H. PURCHASE, Building Inspector to the Borough of Hove. Fifth Edition, Enlarged Royal 8vo 286 pp, with 52 Plates, comprising over 400 Diagrams Cloth Net 7/6

The book is a practical treatise. Most of the examples given are from actual work carried out. It should be found of general utility to architectural students and others as well as to those to whom it is specially addressed. —*Journal of the Royal Institute of British Architects*

**MARBLE AND MARBLE WORKING** A Handbook for Architects, Sculptors, Marble Quarry Owners and Workers and all engaged in the Building and Decorative Industries. Containing numerous Illustrations and 13 Coloured Plates. By V. G. RENWICK Author of *The Marble Industry*, *The Working of Marble for Decorative Purposes* &c. 240 pp. Medium 8vo cloth

15/0

THE UNIVERSITY OF MARBLE—ITS GEOLOGICAL FORMATION—A SHORT CLASSIFICATION OF MARBLE—ANTIQUE AND MODERN MARBLE INDUSTRIES—MOUNTAIN QUARRIES AND METHODS OF WORKING—MODERN QUARRIES AND THEIR REVIVING METHODS OF MACHINERY USED IN QUARRYING—EUROPEAN AND AMERICAN SYSTEMS COMPARED—MARBLE AS BUILDING MATERIAL—USES OF MARBLE OTHER THAN FOR BUILDING PURPOSES—SOURCES OF INDUCTION—ITALIAN, FRENCH, BELGIAN AND GREEK MARBLES &c—MARBLE OF THE UNITED KINGDOM AND BRITISH COMMONIES—CONTINENTAL MARBLE WORKING—MARBLE WORKING MACHINERY—MARBLE WORKING IN THE UNITED STATES—AMERICAN MACHINERY DESCRIBED AND COMPARED MARBLE WORKING IN BRITISH INDUSTRY—MARBLE SUBSTITUTES AND IMITATIONS—PRACTICAL POINTS FOR THE CONSIDERATION OF ARCHITECTS—HINTS ON THE SELECTION OF MARBLE—LIST OF MARBLES IN ORDINARY USE WITH DESCRIPTIVE NOTES AND INSTANCES OF THEIR APPLICATION

This book is admirably produced in illustrations being exceptionally good and we have much pleasure in commend it to our readers.—*See also*

**MARBLE DECORATION** And the Terminology of British and Foreign Marbles. A Handbook for Students. By GEORGE H. BLAGNOVE Author of *Showing and its Application &c* With 26 Illustrations. Crown 8vo cloth

3/6

should be in the hands of every architect and builder.—*See also* *g B 112*

**MEASURED DRAWINGS** Issued by the School of Architecture of the University of Liverpool under the direction of Professor C. H. REEDY Containing measured drawings (including detailed drawings and contours of mouldings) of notable buildings in Great Britain and Ireland and on the Continent. With full page plates and descriptive letterpress. Either loose in a cloth Portfolio or bound in cloth. Per Volume. Net 21/0

Vol. I contains a complete set of the following buildings with detailed drawings to a large scale—THE TOWN HALL, LIVERPOOL 7 PLATES—THE PALACE OF THE GRAND TRIANON VIENNALES & PLATES—THE CUSTOS HOUSE, DUBLIN 4 PLATES—THE GRANDE TRIANON OF THE KING OF PRUSSIA 3 PLATES—THE SINN HALL, CAMBRIDGE 3 PLATES—THE HALL OF PROVIDENCE, DUBLIN 1 PLATE—THE LODGE, HOUSE OF COMMONS 1 PLATE—THE MAIN DWYFOR UNDER CONSTRUCTION, ST. HELENS HALL, LIVERPOOL 1 PLATE—THE IRISH OAK, CHINCHIN TIPPERARY HALL 1 PLATE—THE WOOD MUSLIN HALL 1 PLATE

Vol. II contains a complete detailed Survey of the following buildings with detailed drawings to a large scale—BANK OF ENGLAND, CANARY WHARF LONDON 3 PLATES—BROWN'S INTERNAL DOORS, ST. GEORGE'S HALL, LIVERPOOL 3 PLATES—ST. PAUL'S CHURCH, LIVERPOOL 4 PLATES—THE QUEEN ANNE BLOD, GREENWICH HALL 3 PLATES—MORDEN COLLEGE, BLACKFRIARS 3 PLATES—THE UNIVERSITY LIBRARY, CAMBRIDGE 3 PLATES—THE SCREEN IN THE CHAPEL, LINCOLN COLLEGE, OXFORD 2 PLATES—THE PALACE OF THE GRAND TRIANON, VERSAILLES COURTYARD DETAILS 1 PLATE—PALAZZO RIVOLI, VICO VERONI 1 PLATE—PALAZZO NUOVA VERONA 3 PLATES—SPRKE HALL, LANCASHIRE 6 PLATES—PORTA PAIO, VERONA 3 PLATES

### MEASURING AND VALUING ARTIFICERS' WORK

A Student's Guide containing Directions for taking Dimensions, Abstracting the same and bringing the Quantities into Bill with Tables of Constants for Valuation of Labour and for the Calculation of Areas and Solidities. Originally edited by E. DONSON Architect. With Additions by H. W. TATE M.A. Seventh Edition Revised. Crown 8vo cloth

7/6

The most complete treatise on the principles of measuring and valuing artificers' work.—*See also* *g C 222*

**PACKING-CASE TABLES** Showing the number of Superficial Feet in Boxes or Packing Cases from six inches square and upwards. By W. RICHARDSON Timber Broker. Fourth Edition. Oblong 4to cloth

8/6

Involve labour-saving tables.—*See also*

Will save much labour and calculation.—*See also*

**PAINTING THE IMITATION OF WOODS & MARBLES** As Taught and Practised by A. R. VAN DER BURG, and P. VAN DER BURG Directors of the Rotterdam Painting Institution. Royal folio cloth 18*3* by 12*3* in. Illustrated with 4 full size Coloured Plates also 12 plain Plates comprising 154 Figures. Fifth Edition

Net £1 5s

## PAINTING THE IMITATION OF WOODS &amp; MARBLES—continued

## LIST OF PLATES

1 VARIOUS TOOLS REQUIRED FOR WOOD PAINTING — 2 WALNUT PRELIMINARY STAGES OF GRAINING AND FINISHED SPECIMEN — 4 OAK USED FOR MARBLE PAINTING AND METHOD OF MANIPULATION — 6 STREMI MARBLE EARLIER OPERATIONS AND FINISHED SPECIMEN — 7 METHODS OF SKETCHING DIFFERENT GRAINS, KNOTS &c — 8 ABB PRELIMINARY STAGES AND FINISHED SPECIMEN — 10 METHODS OF SKETCHING MARBLE GRAINS — 1 BRECHE MARBLES PRELIMINARY STAGES OF WORKING AND FINISHED SPECIMEN — 12 MAPLE METHOD OF PRODUCING THE DIFFERENT GRAINS — 14 15 BIRDS EYE MAPLE PRELIMINARY STAGES AND FINISHED SPECIMEN — 6 METHODS OF SKETCHING THE DIFFERENT SPECIES OF WHITE MARBLE — 17 8 WHITE MARBLE PRELIMINARY STAGES OF PROCESS AND FINISHED SPECIMEN — 19 MAHOGANY SPECIMENS OF VARIOUS GRAINS AND METHODS OF MANIPULATION — 21 23 24 SIENNA MARBLE, VARIETIES OF GRAIN PRELIMINARY STAGES AND FINISHED SPECIMEN — 25 26 7 JUNIPER WOOD METHODS OF PRODUCING GRAIN &c PRELIMINARY STAGES AND FINISHED SPECIMEN — 28 29 30 VERT DE MER MARBLE; VARIETIES OF GRAIN AND METHODS OF WORKING UNFINISHED AND FINISHED SPECIMENS — 31 32 33 OAK, VARIETIES OF GRAIN TOOLS EMPLOYED AND METHODS OF MANIPULATION PRELIMINARY STAGES AND FINISHED SPECIMEN — 34 35 36 WAULSORT MARBLE VARIETIES OF GRAIN UNFINISHED AND FINISHED SPECIMEN

Those who desire to attain skill in the art of painting woods and marble will find advantage in consulting this book. Some of the Working Men's Clubs should give their young men the opportunity to study it. —See later

Students and novices are fortunate who are able to become the possessors of so noble a work — *The Architects'*

## PAINTING POPULARLY EXPLAINED By THOMAS

JOHN GULICK Painter and JOHN TIMES FSA Including Fresco Oil Mosaic Water Colour Water Glass Tempera Encasto, Miniature Painting on Ivory Vellum Pottery Enamel Glass &c Sixth Edition Crown 8vo cloth

5/0

## PLANNING OF HOUSES See HOUSE PLANNING

## PLASTERING A Practical Compendium of Plain and Ornamental Plaster Work By W KEMP Crown 8vo cloth

2/0

## PLUMBING STEAM AND HOT WATER HEATING

A Modern Work for the Plumber, the Heating Engineer, the Architect and the Builder By J J LAWREN With 284 Illustrations 4to cloth Net 21/0

## PLUMBING A Text Book to the Practice of the Art or Craft of the Plumber With Chapters upon House Draining and Ventilation By WM PATON BUCHAN Ninth Edition with 512 Illustrations Crown 8vo cloth

3/6

## PORTLAND CEMENT FOR USERS By the late HENRY FAJJA M Inst C E Fifth Edition Revised and Enlarged by D B BUTLER A M Inst C E Crown 8vo cloth

3/0

## PORTLAND CEMENT, THE MODERN MANUFACTURE

OF A Handbook for Manufacturers Users and all interested in Portland Cement By PERRY C H WEST, Fellow of the Chemical Society and of the Society of Chemical Industry Vol I — Machinery and Kilns 280 pages with 159 Illustrations and numerous Tables Royal 8vo cloth Net 12/6

## PUBLIC WORKS CALCULATOR Containing Tables showing at sight the Cubic Contents of Square or Round Stone &amp;c Also Tables of Superficial Measure and Weight of Mild Steel Bars and Angles Compiled specially for Indian and Colonial Requirements by a Public Works Officer Second Edition Enlarged 7 ins x 3 ins cloth Just published Net 2/6

## QUANTITIES AND MEASUREMENTS In Bricklayers, Masons Plasterers Plumbers Painters Paperhangers Gilders Smiths Carpenters and Joiners Work By A C BEATON Surveyor Crown 8vo cloth

1/6

## RATING AND ASSESSMENT, THE LAW AND PRACTICE OF A Handbook for Overseers Members of Assessment Committees Surveyors and others interested in Rating and Valuation By CLARENCE A WEST, P A &amp; I Valuer and Rating Surveyor Author of The Valuation of Real Property &amp;c 358 pages Demy 8vo cloth

Net 7/6

**REINFORCED CONCRETE** A Handbook for Architects, Engineers and Contractors By F D WARREN Massachusetts Institute of Technology with Illustrations 277 pages Crown 8vo cloth **Net 10/6**

**REINFORCED CONCRETE DESIGN** A Graphical Handbook by JOHN HAWKESWORTH C E, consisting of a series of Plates showing graphically by means of plotted curves the required design for Slabs Beams and Columns, under various conditions of external loading together with practical examples explaining the method of using each Plate. With an Appendix containing the requirements of the Building Code of New York City in regard to Reinforced Concrete 64 pages 15 full page Plates 4to, cloth **Net 12/0**

**REINFORCED CONCRETE DESIGN SIMPLIFIED** Data, tables and other data for designing and checking accurately and speedily By JOHN C GAMMON B Sc Eng (London) Assoc City Guilds Institute Member of the Concrete Institute Assistant Engineer Public Works Department India. With an Introduction by H KLEMPTON DIXON Secretary of the Concrete Institute Lecturer on Reinforced Concrete London County Council School of Building Second Edition Revised Demy 4to cloth with Thumb Index **Net 10/6**

**ROOF CARPENTRY** Practical Lessons in the Framing of Wood Roofs For the use of Working Carpenters By GEO COLLINGS Crown 8vo cloth **2/0**

**SANITARY WORK IN SMALL TOWNS AND VILLAGES** By CHARLES SLAGE A M Inst C E Third Edition Enlarged Crown 8vo cloth **3/0**

**SANITATION, WATER SUPPLY, AND SEWAGE DISPOSAL OF COUNTRY HOUSES** By WM PAUL GERHARD C E 350 pages with 113 Illustrations Crown 8vo, cloth **Net 8/6**

**SAW MILLS** Their Arrangement and Management and the Economical Conversion of Timber By M FOWLES BALE M Inst C E Third Edition Revised Crown 8vo cloth **10/6**

**SEWAGE, PURIFICATION OF** being a Brief Account of the Scientific Principles of Sewage Purification and their Practical Application By SIDNEY BARNHURST M D (Lond) B Sc M R C S D P H (Camb) Fellow of the Sanitary Institute, Medical Officer of Health to the Derbyshire County Council Second Edition Revised and Enlarged, with an Appendix on the Analysis of Sewage and Sewage Effluents With numerous Illustrations and Diagrams Demy 8vo cloth **Net 10/6**

**SEWERAGE OF SEA COAST TOWNS** By HENRY C ADAMS A M Inst C E M I Mech E A M I P R M R San Inst, &c 128 pages, with Illustrations Demy 8vo cloth **Net 5/0**

THE FORMATION OF TIDES AND CURRENTS—OBSERVATIONS ON THE RISE AND FALL OF TIDES—CURRENT OBSERVATIONS—SELECTION OF SITE FOR OUT FALL SEWER—VOLUME OF SEWAGE—GAGING FLOW IN SEWERS—RAINFALL—STORM WATER IN SEWERS—WIND AND WINDMILLS—THE DESIGN OF SEA OUTFALLS—ACTION OF SEA WATER ON CEMENT—DIVING—THE DISCHARGE OF SEA OUTFALL SEWERS—TRIGONOMETRICAL SURVEYING—HYDROGRAPHICAL SURVEYING

**SEWERAGE SYSTEMS THEIR DESIGN AND CONSTRUCTION** A Practical Treatise upon the Principles of the Design Construction and Maintenance of Town Sewerage Systems, with Examples of Existing Works By HUGH S WATSON A M Inst C E Author of 'Town Scavenging and Refuse Disposal' with Legal Notes on the Principal Acts of Parliament and the Legal Procedure relating to the Provision of Works of Sewerage by ELIAS B HERRBERT Barrister at Law 330 pages with 150 Illustrations Royal 8vo cloth **Net 10/6**

GENERAL DESIGN OF SEWERAGE SYSTEMS: PRELIMINARY—DATA REQUIRED FOR PREPARATION OF DESIGN—THEORY OF SEWER DESIGN—PRACTICE IN SEWER DESIGN—THE VENTILATION OF SEWERS—THE FLUSHING OF SEWERS—DETAIL PLANS SEWERS—DETAIL 1 LAMP MANNERS AND LAMPHOLES—DETAIL PLANS VENTILATING AND FLUSHING APPLIANCES—DETAILED PLANS SURFACE WATER GULLING INTERCEPTORS AND OVERFLOWS—DETAIL 1 LAMP INVERTED SYPHONS AND RAMPS—SEA OUTFALLS—

SEWERAGE SYSTEMS—*Continued*

SEWAGE LIFTING APPARATUS—THE PREPARATION OF A WORKING SCHEME FOR INDUSTRIAL WORK—ESTIMATING AND THE PREPARATION OF QUOTATIONS—CONSTRUCTION—INITIAL PLANNING—EXCAVATING, TUNNELLING AND IMPLANTING FOUNDATIONS AND SEWERS—MANHOLES, RAILWAY AND RIVER CROSSINGS AND SPWFS, AND OTHER GROUNDS—MAINTENANCE, GENERAL SUPERVISION—LEGAL POINTS—OUTLINE SPECIFICATION

This volume is very comprehensive and up to date and I could be useful to all engineers but particularly to students and young engineers as a text book, and above all to residential engineers, clerks of works and contractors.—See review

**SHORING, and its Application** By G H BLACKMORE Crown 8vo cloth 1/6

**A SHORT SPECIFICATION of Materials Labour and Goods for Works connected with Building** By JAMES CURRIT Architect New and Cheaper Edition 124 pages Oblong Demy 4to cloth Net 2/0

W has been in circulation and will find this pocket book of assistance to all young practitioners who will find it a valuable model for a great service in a short time.

This book is one that should be considered able to serve as a text book to every reader.—See review

We strongly recommend the prompt purchase of the book to every reader.—*Building News*

**SPECIFICATIONS IN DETAIL** By FRANK FW MACEY Architect Author of Conditions of Contract Second Edition Revised and Enlarged containing 644 pp and 300 Illustrations Royal 8vo cloth Net 21/0

GENERAL NOTES—SPECIFICATION OF WORKS AND LIST OF GENERAL CONDITIONS—INDUSTRIAL ITEMS INCLUDING SHORING AND HOUSE BREAKING—DRAINAGE (INCLUDING FAIR WATER WELL AND REPORTS)—EXCAVATOR (INCLUDING CONCRETE FLOORS, ROOFS, STAIRS AND WALLS)—PAVILION—BRICKLAYER (INCLUDING FLINTWORK, RIVER AND OTHER WALLING)—SPRING WATER WHILE STORAGE TANKS, FOUNTAINS, TILES, TERRA COTTA AND FAIENCE)—MASON—CARPENTER, JOINER AND IRONMONGER (INCLUDING FENCING AND FILING)—SMITH AND FOUNDER (INCLUDING FURNACE, FIRE HYDRANTS, STAIRS AND COW HOUSE FLOORING)—SLATER (INCLUDING SLATE, MASON—TILER—STONE TILER—BRICKLAYER—THATCHER—PLUMBER (INCLUDING HOT WATER WORK)—ZINCWORKER—COOPERSMITH—PLASTERER—GLAZIER—HILLHANGER—GLAZIER—PAINTER—PAINTERHANGER—GENERAL REPAIRS AND ALTERATIONS—VENTILATION—ROAD MAKING—ELECTRIC LIGHT—INDFLY.

We strongly advise every student to purchase the volume and carefully study it while to the older practitioner we would have it as a most useful work of reference.—Architectural Association Review

**SPECIFICATIONS FOR PRACTICAL ARCHITECTURE**

A Guide to the Architect Engineer Surveyor and Builder Upon the Basis of the Work by A BARTHOLOMEW, Revised by F ROBERTS 8vo cloth 15/0

**STEAM AND HOT WATER HEATING AND VENTILATION**

A Modern Work on Steam and Hot Water Heating and Ventilation with Descriptions and Data of all Materials and Appliances used in the Construction of such Apparatus Rules Tables &c By V G KING 400 pages over 300 Illustrations Demy 8vo cloth Net 12/6

INTRODUCTION—HPAI—EVOLUTION OF ARTIFICIAL HEATING APPARATUS—BOILER SURFACES AND STIRRING—THE CHIMNEY FLUE—PIPE AND FITTINGS—VALVES—FORMS OF RADIATING SURFACES—LOCATING OF RADIATING SURFACES—ESTIMATING RADIATION—STEAM HEATING APPARATUS—EXHAUST STEAM HEATING—HOT WATER HEATING—PRINCIPAL SYSTEMS OF HOT WATER WORK—HOT WATER APPLIANCES—GREENHOUSE HEATING—VACUUM, VAPOUR AND VACUUM EXHAUST HEATING—MISCELLANEOUS HEATING—RADIATOR AND PIPE CONNECTION—VENTILATION—HILLMAN WALL VENTILATION AND HOT BLAST HEATING—STEAM APPLIANCES—DISTRICT HEATING—PIPE AND BOILER COVERING—TEMPERATURE REGULATION AND HEAT CONTROL—BUSINESS METHODS—MISCELLANEOUS—RULES, TABLES AND USEFUL INFORMATION

**SUPERFICIAL MEASUREMENT** Tables calculated from 1 to 100 inches in length by 1 to 100 inches in breadth. A Guide for the use of Architects Surveyors Engineers Timber Merchants Builders &c By J HAWKINS Fifth Edition Crown 8vo cloth 3/6

**TECHNICAL GUIDE, MEASURER, AND ESTIMATOR**

For Builders and Surveyors. Containing Technical Directions for Measuring Work in all the Building Trades Complete Specifications for Houses, Roads and Drains and an Easy Method of Estimating the parts of a Building collectively By A C BEATON Tenth Edition Wainscott pocket vnl 1/6

**TIMBER IMPORTER'S, TIMBER MERCHANT'S, AND BUILDER'S STANDARD GUIDE** By R E GRANDY Crown 8vo  
cloth 2/0

**TIMBER MERCHANT'S and BUILDER'S COMPANION**

Containing New and Copious Tables of the Reduced Weight and Measure  
ment of Deals and Battens of all sizes, and other Useful Tables for the use of  
Timber Merchants and Builders By WILLIAM DOWSING Fifth Edition  
Revised and Corrected Crown 8vo cloth 3/0  
We are glad to see these admirable tables which for correctness and simplicity of  
arrangement leave nothing to be desired — *Timber Trade Review*

**TIMBER MERCHANT** Being a Practical Guide for the  
Use of Building Contractors Surveyors Builders &c comprising useful  
Tables for all purposes connected with the Timber Trade Marks of Wood  
Essay on the Strength of Timber Remarks on the Growth of Timber &c By  
W RICHARDSON Second Edition Fcap 8vo, cloth , 3/6

**VALUATION OF REAL PROPERTY** A Guide to the  
Principles of Valuation of Land and Buildings, &c for various Purposes  
including the Taxation of Land Values With numerous examples By  
CLARENCE A WHIBS Valuer and Rating Surveyor Professional Associate of  
the Surveyors Institution Author of The Law and Practice of Rating and  
Assessment and Rates and Taxes Third Edition Revised and Enlarged  
by ARTHUR HUNNINGTON FSI 340 pp Demy 8vo cloth *Just Published* Net 7/6

GENERAL PRINCIPLES OF VALUATION—VALUATION OF LAND AND BUILDINGS  
SEPARATELY—VALUATION OF FACTORIES AND TRADE INTERESTS—VALUATION OF  
PUBLIC HOUSES—TIMBER VALUATION—VALUATION FOR MORTGAGE—COPYHOLD  
RENT AND HERITAGE—ARBITRATION—COMPULSORY PURCHASE—VALUATION FOR  
RATING—VALUATION FOR TAXATION—DEATH DUTIES—INSURANCE CLAIMS—  
CONSTRUCTION OF VALUATION TABLES—VALUATION TABLES

**VENTILATION** A Text Book to the Practice of the Art of  
Ventilating Buildings By W P BUCHAN With 170 Illustrations Crown  
8vo cloth 3/6

**VENTILATION** See ' Steam and Hot Water Heating and  
Ventilation'

**WATER AND ITS PURIFICATION** A Handbook for the  
Use of Local Authorities Sanitary Officers, and others interested in Water  
Supply By S RIDAL DSc Lond, FIC Second Edition Revised  
with Additions including numerous Illustrations and Tables Large Crown  
8vo cloth *Just Published* Net 9/0

**WATER SUPPLY OF CITIES AND TOWNS** By

**WATER SUPPLY OF TOWNS AND THE CONSTRUCTION OF WATER WORKS** A Practical Treatise for the use of Engineers and Students of Engineering By W. K. BURTON A M Inst C E Consulting Engineer to the Tokyo Waterworks Third Edition Revised Edited by ALLAN GREENWELL F G S A M Inst C E With numerous Plates and Illustrations Super royal 8<sup>vo</sup>, buckram

£1 5s

I INTRODUCTORY—II DIFFERENT QUALITIES OF WATER—III QUANTITY OF WATER TO BE PROVIDED—IV ON ASCERTAINING WHETHER A PROPOSED SOURCE OF SUPPLY IS SUFFICIENT—V ON ESTIMATING THE STORAGE CAPACITY REQUIRED TO BE PROVIDED—VI CLASSIFICATION OF WATERWORKS—VII IMMOUNING RESERVOIRS—VIII EARTHWORKS, DAMS—IX MASONRY DAMS—X THE FILTRATION OF WATER—XI SETTLING RESERVOIRS—XII SAND FILTRATION—XIII PURIFICATION OF WATER BY ACTION OF IRON SOFTENING, OR WATER BY ACTION OF LIME NATURAL FILTRATION—XIV SERVICE OR CLARIFYING RESERVOIRS—WATER TOWERS—LAND FILT.—XV THE CONNECTION OF SETTLING RESERVOIRS FILTER BEDS AND SERVICE RESERVOIRS—XVI PUMPS, MACHINERY—XVII FLOW OF WATER IN CONDUITS—PIPES AND OPEN CHANNELS—XVIII DISTRIBUTING SYSTEMS—XIX SPECIAL PROVISIONS FOR THE EXTINCTION OF FIRES—XX PIPES FOR WATERWORKS—XXI PREVENTION OF WASTE OF WATER—XXII VARIOUS APPLIANCES USED IN CONNECTION WITH WATERWORKS

APPENDIX I BY PROF. JOHN MILNE F R S—CONSIDERATIONS CONCERNING THE PROBABLE EFFECTS OF EARTHQUAKES ON WATERWORKS AND THE SPECIAL PRECAUTIONS TO BE TAKEN IN EARTHQUAKE COUNTRIES

APPENDIX II BY JOHN DE RIJKE C E ON SAND DUNES AND DUNE SANDS AS A SOURCE OF WATER SUPPLY

We can get into the author upon the strict and commonsense shown in the preparation of this work. The plates and diagrams have willingly been prepared with great care and can not fail to be of great assistance to the student.—Editor

**WATER SUPPLY, RURAL** A Practical Handbook on the Supply of Water and Construction of Waterworks for Small Country Districts By ALLAN GREENWELL A M I C E and W. T. CURRY, A M I C E Revised Edition Crown 8vo cloth

5/0

**WATER ENGINEERING** A Practical Treatise on the Measurement, Storage, Conveyance and Utilisation of Water for the Supply of Towns By C. SLAGG, A M Inst C E

7/6

**WOOD-CARVING FOR AMATEURS** With Hints on Design By A LADY With 10 Plates New and Cheaper Edition Crown 8vo in emblematic wrapper

2/0

The handicraft of the wood carver so well as a book can impart it may be learnt from A Lady's publication.—Editor

**WOODWORKING MACHINERY** Its Rise, Progress, and Construction With Hints on the Management of Saw Mills and the Economical Conversion of Timber Illustrated with Examples of Recent Designs by leading English, French, and American Engineers By M. POWIS BALE, M Inst C E, M Inst Mech E Second Edition, Revised, with large Additions large crown 8vo, 440 pp, cloth

9/0

Mr. Bale is evidently an expert on the subject and he has collected so much information that his book is all sufficient for builders and others engaged in the conversion of timber.—Architect

## PUBLICATIONS OF THE ENGINEERING STANDARDS COMMITTEE

**M**ESSRS CROBY LOCKWOOD & SON having been appointed OFFICIAL PUBLISHERS to the ENGINEERING STANDARDS COMMITTEE beg to invite attention to the List given below of the Publications already issued by the Committee and will be prepared to supply copies thereof and of all subsequent Publications as issued

*The Reports are foolscap folio, sewed except where otherwise stated*

Reports already published —

1	British Standard Sections (g lists) (included in No 6)—ANGLES, EQUAL AND UNEQUAL—BULB ANGLES, TEES AND PLATES— Z AND T BARS—CHANNELS—BEAMS	Net 1/0
2	Tramway Rails and Fish-Plates	2/0
3	Report on the Influence of Gauge Length By Professor W C UNWIN F R S	Net 5/0
4	Properties of Standard Beams (included in No 6) Demy 8vo sewed	Net 1/0
5	Standard Locomotives for Indian Railways Superseded	
6	Properties of British Standard Sections DIAGRAMS AND DEFINITIONS TABLES, AND FORMULÆ Demy 8vo cloth Net 2/6	
7	Tables of British Standard Copper Conductors 5/0	
8	Tubular Tramway Poles 5/0	
9	Bull-Headed Railway Rails 2/0	
10	Tables of Pipe Flanges 2/6	
11	Flat-Bottomed Railway Rails 2/0	
12	Specification for Portland Cement 5/0	
13	Structural Steel for Ship-Building 5/0	
14	Structural Steel for Marine Boilers 5/0	
15	Structural Steel for Bridges and General Building Con- struction Net 5/0	
16	Specifications and Tables for Telegraph Materials 2/0	
17	Interim Report on Electrical Machinery Superseded	
19	Report on Temperature Experiments on Field Coils of Electrical Machines Net 10/6	
20	British Standard Screw Threads 2/6	
21	British Standard Pipe Threads 2/6	
22	Report on Effect of Temperature on Insulating Materials Net 5/0	
23	Standards for Trolley Groove and Wire 1/0	
24	Material Used in the Construction of Railway Rolling Stock Net 21/0	
25	Errors in Workmanship Based on Measurements carried out for the Committee by the National Physical Laboratory Net 10/6	
26	Second Report on Standard Locomotives for Indian Rail- ways Superseded	
27	Standard Systems of Limit Gauges for Running Fits Net 5/0	
28	Nuts, Bolt-Heads, and Spanners 2/6	
29	Ingot Steel Forgings for Marine Purposes 5/0	
30	Ingot Steel Castings for Marine Purposes 5/0	

**PUBLICATIONS OF THE ENGINEERING  
STANDARDS COMMITTEE—contd**

31	Steel Conduits for Electrical Wiring	Net	5/0
32	Steel Bars (for use in Automatic Machines)	Net	2/6
33	Carbon Filament Glow Lamps	Net	5/0
35	Copper Alloy Bars (for use in Automatic Machines)	Net	2/6
36	British Standards for Electrical Machinery	Net	2/6
37	Consumers Electric Supply Meters (Motor Type for Continuous and Single Phase Circuits)	Net	5/0
38	Limit Gauges for Screw Threads	Net	5/0
39	Combined Reports on Screw Threads (containing Reports Nos 20 to 38)	Net	7/6
40	Cast Iron Spigot and Socket Low Pressure Heating Pipes	Net	2/6
41	Cast Iron Spigot and Socket Flue or Smoke Pipes	Net	2/6
42	Reciprocating Steam Engines for Electrical Purposes	Net	5/0
43	Charcoal Iron Lapwelded Boiler Tubes	Net	2/6
44	Cast Iron Pipes for Hydraulic Power	Net	5/0
45	Standard Dimensions for the Threads of Sparking Plugs (for Internal Combustion Engines)	Net	2/6
46	Keys and Keyways	Net	2/6
47	Steel Fishplates for Bull-Head and Flat-Bottom Railway Rails	Net	10/6
48	Wrought Iron of Smithing Quality for Shipbuilding (Grade D)	Net	2/6
49	Ammeters and Voltmeters	Net	5/0
50	Third Report on Standard Locomotives for Indian Railways Incorporating Reports Nos 5 and 26	Net	21/0
51	Wrought Iron for use in Railway Rolling Stock Best Yorkshire, and Grades A, B, and C	Net	10/6
52	Bayonet Socket Lamp Holders and Caps	Net	5/0
53	Cold Drawn Weldless Steel Tubes for Locomotive Boilers	Net	2/6
54	Threads, Nuts and Bolt Heads for use in Automobile Construction	Net	2/6
55	Hard Drawn Copper and Bronze Wire	Net	10/6
56	Definitions of Yield Point and Elastic Limit	Gratis	
57	Heads for Small Screws	Net	2/6
58	Cast Iron Spigot and Socket Soil Pipes	Net	5/0
59	Spigot and Socket Waste and Ventilating Pipes for other than Soil Purposes	Net	5/0
60	Report of Experiments on Tungsten Filament Glow Lamps (in 2 parts)	Net	21/0
61	Copper Tubes and their Screw Threads	Net	2/6
62	Screwing for Marine Boiler Stays	Gratis	
63	Sizes of Broken Stone and Chippings	Net	3/0
64	Steel Fishbolts and Nuts for Railway Rails	Net	5/0

**LONDON CROSBY LOCKWOOD & SON,  
7 STATIONERS' HALL COURT, LUDGATE HILL E.C.,  
AND 5 BROADWAY, WESTMINSTER, S.W.**

BRADBURY, AGNEW, & CO. LTD. LONDON AND FORTRESS B. (17 5 11 19)





The University Library,

Allahabad.

202

12

Accession No

2718

Section No

3654  
5